

# WEST Search History





DATE: Tuesday, February 22, 2005

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
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*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ*

<input type="checkbox"/>	L23	L22 AND L14	10
<input type="checkbox"/>	L22	L21 AND insulin	16
<input type="checkbox"/>	L21	intramolecular chaperone	23
<input type="checkbox"/>	L20	L17 AND human insulin	149
<input type="checkbox"/>	L19	L17 AND human insulin	3
<input type="checkbox"/>	L18	L17 AND human insuling	0
<input type="checkbox"/>	L17	L16 AND chaperone	287
<input type="checkbox"/>	L16	L14 AND insulin	8258
<input type="checkbox"/>	L15	L14 AND insuling	8
<input type="checkbox"/>	L14	somatotropin OR human growth hormone	12221
<input type="checkbox"/>	L13	L12 AND somatotropin	30
<input type="checkbox"/>	L12	L11 AND insulin	3289
<input type="checkbox"/>	L11	536/23.4,23.5.CCLS.	10602
<input type="checkbox"/>	L10	L8 AND somatotropin	80
<input type="checkbox"/>	L9	L8 AND human-growth-hormone	0
<input type="checkbox"/>	L8	L7 AND insulin	7660
<input type="checkbox"/>	L7	435/252.3,325.CCLS.	23222
<input type="checkbox"/>	L6	Gan.IN.	2235
<input type="checkbox"/>	L5	Gan-Z.IN.	34
<input type="checkbox"/>	L4	Gan-Z-R.IN.	2
<input type="checkbox"/>	L3	Gan-Zhong.IN.	0
<input type="checkbox"/>	L2	Gan-Zhong-R.IN.	0
<input type="checkbox"/>	L1	(Gan-Zhong-Ru.IN.)	4

END OF SEARCH HISTORY

# Hit List

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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## Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 20020164712 A1

Using default format because multiple data bases are involved.

L1: Entry 1 of 4

File: PGPB

Nov 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020164712

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020164712 A1

TITLE: Chimeric protein containing an intramolecular chaperone-like sequence

PUBLICATION-DATE: November 7, 2002

### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gan, Zhong-Ru	Tonghua City		CN	

US-CL-CURRENT: 435/69.4; 435/226, 435/320.1, 435/325, 530/303, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 2. Document ID: JP 03197495 A

L1: Entry 2 of 4

File: JPAB

Aug 28, 1991

PUB-NO: JP403197495A

DOCUMENT-IDENTIFIER: JP 03197495 A

TITLE: VIPER VENOM POLYPEPTIDE AND VARIANT

PUBN-DATE: August 28, 1991

### INVENTOR-INFORMATION:

NAME	COUNTRY
FRIEDMAN, PAUL A	
GOULD, ROBERT J	
GAN, ZHONG-RU	
JACOBS, JOHN W	
POLOKOFF, MARK A	
NIEWIAROWSKI, STEFAN	
HOLT, JOHN C	
WILLIAMS, JANICE A	
RUCINSKI, BOGUSLAW	

US-CL-CURRENT: 530/324

INT-CL (IPC): C07K 7/10; A61K 37/02; A61K 37/02; C07K 1/14; C07K 7/08

h e b b g e e e f e eh ef b e

## ABSTRACT:

NEW MATERIAL: Polypeptide having the amino acid sequence of general formula (Ch is at least one of amino acids; Cx is at least one of amino acids; R

USE: Platelet aggregation inhibitor, anticoagulation agent.

PROCESS: For example, the viper venom of Ethis-Karitanus is dissolved in 10 mM ammonium hydrogencarbonate, and is centrifuged to remove pellets, the supernatant is applied to gel filtration, the protein-containing fraction is applied to cation exchange high-performance liquid chromatography, the bonded protein is eluted by a buffer with straight gradient of 0-0.3 MNaCl of pH 5.3, the active fraction is applied to the reversed phase high performance liquid chromatography, and the adsorbed protein is eluted by 0.1% aqueous trifluoroacetic acid with acetonitrile gradient eluted to prepared the polypeptide of general formula.

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Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw Des
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☐ 3. Document ID: JP 02138298 A

L1: Entry 3 of 4

File: JPAB

May 28, 1990

PUB-NO: JP402138298A

DOCUMENT-IDENTIFIER: JP 02138298 A

TITLE: VIPER VENOM POLYPEPTIDE AND GENETIC EXPRESSION

PUBN-DATE: May 28, 1990

## INVENTOR-INFORMATION:

NAME

COUNTRY

FRIEDMAN, PAUL A

GOULD, ROBERT J

JACOBS, JOHN W

POLOKOFF, MARK A

BENCEN, GERARD H

GARSKY, VICTOR M

GAN, ZHONG-RU

INT-CL (IPC): C07K 7/08; A61K 37/02; C07K 7/10; C12N 1/21; C12N 15/12; C12P 21/02; C12P 21/02

## ABSTRACT:

NEW MATERIAL: Polypeptide having an amino acid sequence expressed by the formiula (X is H, at least one amino acid; Y is OH, at least one amino acid ; R is amino acid).

USE: Platelet aggregation inhibitor.

PROCESS: For example, an aminoacyl polymer is produced by sticking the first C-terminal amino acid of the amino acid sequence of polypeptide to a solid crosslinked styrene resin, the first C-terminal amino acid blocking group is removed from the polymer, the next second amino acid is bonded to a terminal amino acid residue. In this way, amino acids are bonded stepwise in sequence to produce a polypeptide sequence, an N-terminal protective group protecting the N-terminal amino acid is removed, it is treated with HF and a thio- containing scavenger, after being washed, transferred to a large amount of dilute acetic acid, pH is adjusted at 8.0 to obtain

h e b b g e e e f e e h e f b e

polypeptide having an amino acid sequence of a formula.

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Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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☐ 4. Document ID: EP 338634 A2

L1: Entry 4 of 4

File: EPAB

Oct 25, 1989

PUB-NO: EP000338634A2

DOCUMENT-IDENTIFIER: EP 338634 A2

TITLE: Viper venom polypeptides and genetic expression.

PUBN-DATE: October 25, 1989

INVENTOR-INFORMATION:

NAME

COUNTRY

FRIEDMAN, PAUL A

POLOKOFF, MARK A

GOULD, ROBERT J

BENCEN, GERARD H

JACOBS, JOHN W

GARSKY, VICTOR M

GAN, ZHONG-RU

US-CL-CURRENT: 530/324

INT-CL (IPC): A61K 37/02; C07K 7/08; C07K 7/10; C12N 15/00; C12P 21/02

EUR-CL (EPC): C07K014/745; C07K014/245, C07K014/46

ABSTRACT:

CHG DATE=19990617 STATUS=O> A platelet aggregation inhibiting polypeptide having the following amino acid sequence: X-Cys-R-R-R-Arg-Gly-Asp-R-R-R-R-R-Cys-Y where X is H or at least one amino acid; Y is OH or at least one amino acid; and each R, either the same or different, is any amino acid. Genetically engineered genes for the polypeptides are described and expressed as a fusion protein using the pJC264 expression vector in E. coli. Synthetic polypeptides and methods of synthesis are also described.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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Display Format: -

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# Hit List

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Generate Collection

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## Search Results - Record(s) 1 through 2 of 2 returned.

- ☐ 1. Document ID: EP 382451 A, CA 2009390 A, JP 03197495 A

Using default format because multiple data bases are involved.

L4: Entry 1 of 2

File: DWPI

Aug 16, 1990

DERWENT-ACC-NO: 1990-248351

DERWENT-WEEK: 199033

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TITLE: Viper venom polypeptide(s) - useful for inhibiting fibrinogen binding to human platelets and inhibiting fibrinogen-induced aggregation

INVENTOR: FRIEDMAN, P A; GAN, Z R; GOULD, R J; HOLT, J C; JACOBS, J W; NIEWIAROWS, S; POLOKOFF, M A; RUCINSKI, B

PRIORITY-DATA: 1989US-0307642 (February 7, 1989)

### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 382451 A</u>	August 16, 1990		000	
<u>CA 2009390 A</u>	August 7, 1990		000	
<u>JP 03197495 A</u>	August 28, 1991		000	

INT-CL (IPC): A61K 37/02; C07K 7/10

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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- ☐ 2. Document ID: EP 338634 A, AU 8933299 A, CN 1039441 A, DE 68914316 E, DK 8901921 A, EP 338634 B1, ES 2063113 T3, FI 8901916 A, JP 02138298 A, NO 8901662 A, NZ 228710 A, PT 90321 A, ZA 8902953 A

L4: Entry 2 of 2

File: DWPI

Oct 25, 1989

DERWENT-ACC-NO: 1989-311082

DERWENT-WEEK: 198943

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TITLE: Viper venom polypeptide cpds. - useful in inhibiting platelet aggregation where strong antithrombotic activity of short duration is needed

INVENTOR: BENCEN, G H; FRIEDMAN, P A; GAN, Z; GARSKY, V M; GOULD, R J; JACOBS, J W; POLOKOFF, M A; GAN, Z R

PRIORITY-DATA: 1989US-0303757 (February 1, 1989), 1988US-0184649 (April 22, 1988), 1988US-0184653 (April 22, 1988)

### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
h	e b	b g e e e f	e eh	ef b e

<u>EP 338634 A</u>	October 25, 1989	E	033	
<u>AU 8933299 A</u>	February 15, 1990		000	
<u>CN 1039441 A</u>	February 7, 1990		000	
<u>DE 68914316 E</u>	May 11, 1994		000	C07K007/08
<u>DK 8901921 A</u>	October 23, 1989		000	
<u>EP 338634 B1</u>	April 6, 1994	E	054	C07K007/08
<u>ES 2063113 T3</u>	January 1, 1995		000	C07K007/08
<u>FI 8901916 A</u>			000	
<u>JP 02138298 A</u>	May 28, 1990		000	
<u>NO 8901662 A</u>	November 13, 1989		000	
<u>NZ 228710 A</u>	October 28, 1992		000	C07K007/10
<u>PT 90321 A</u>	November 10, 1989		000	
<u>ZA 8902953 A</u>	December 27, 1989		000	

INT-CL (IPC): A61K 37/02; C07H 21/04; C07K 3/02; C07K 7/08; C07K 7/10; C07K 15/06; C12N 1/20; C12N 15/00; C12N 15/10; C12N 15/12; C12P 21/02

ABSTRACTED-PUB-NO: EP 338634A

BASIC-ABSTRACT:

The following are claimed: (A) a polypeptide having the amino acid sequence (I)

X-Cys-R-R-R-Arg-Gly-Asp-R-R-R-R-R-Cys-Y (I)

(X = H or at least one amino acid; Y = OH or at least one amino acid; each R = any amino acid); (B) a method for purifying a polypeptide of the sequence (II)

Glu-Cys-Glu-Ser-Gly-Pro-Cys-Lys -Arg-Asn-Cys-Lys-Phe-Leu-Lys-Glu -Gly-Thr-Ile-Cys-Lys-Arg-Ala-Arg -Gly-Asp-Asp-Met-Asp-Asp-Tyr-Cys -Asn-Gly-Lys-Thr-Cys-Asp-Cys-Pro -Arg-Asn-Pro-His-Lys-Gly-Pro-Ala-Thr (II)

comprising (a) dissolving lyophilised Echis carinatus venom in slightly basic soln., (b) centrifuging the soln. to obtain supernatant, (c) loading supernatant onto a column and (d) determg. fractions contg. platelet aggregation inhibitory activity and concentrating under vacuum, (C) a gene comprising a recombinant DNA molecule encoding a polypeptide having the amino acid sequence (III)

H2-(Ch)-Cys-R-R-R-Arg-Gly -Asp-R-R-R-R-R-Cys-(Cx)-H (III)

(Ch = at least one amino acid; Cx = at least one amino acid; each R = an amino acid) where the polypeptide inhibits platelet aggregation; (D) a replicable microbial expression vector comprising a promoter-operator sequence capable of expressing heterologous proteins in a microorganism followed by DNA encoding a platelet aggregation inhibitor having an amino acid sequence (III), where transcription of the DNA in a transformant microorganism is under control of the promoter-operator.

USE - The polypeptides are eliminated from circulation rapidly and are partic. useful in inhibiting platelet aggregation in situations where a strong antithrombotic activity of short duration of effectiveness is needed. They may also be used to prevent myocardial infarction.

ABSTRACTED-PUB-NO:

EP 338634B EQUIVALENT-ABSTRACTS:

A polypeptide having the following amino acid sequence: X-Cys-R-R-R-Arg-Gly-Asp-R-R-R-R-R-Cys-Y wherein X is H or at least one amino acid; Y is OH or at least one amino acid; and each R, either the same or different, is any amino acid; with the exception of Trigramin.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KM/C	Draw	Desc
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Display Format:

[Previous Page](#)

[Next Page](#)

[Go to Doc#](#)

# Hit List

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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## Search Results - Record(s) 1 through 34 of 34 returned.

☐ 1. Document ID: US 20040254677 A1, WO 2004108363 A1, US 6836702 B1

Using default format because multiple data bases are involved.

L5: Entry 1 of 34

File: DWPI

Dec 16, 2004

DERWENT-ACC-NO: 2005-021396

DERWENT-WEEK: 200502

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TITLE: Program fine tuning for e.g. industrial robot by adjusting fine tuning coordinate system based on difference between pose obtained after running the program instructions and the desired pose

INVENTOR: BRANTMARK, H; BROGARDH, T ; GAN, Z ; LI, X ; ROSSANO, G ; SUN, Y ; TANG, Q ; BROGAERD, T

PRIORITY-DATA: 2003US-0458785 (June 11, 2003)

### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 20040254677 A1</u>	December 16, 2004		000	G06F019/00
<u>WO 2004108363 A1</u>	December 16, 2004		004	B25J009/16
<u>US 6836702 B1</u>	December 28, 2004		000	G06F019/00

INT-CL (IPC): B25 J 9/16; G05 B 19/18; G05 B 19/408; G05 B 19/42; G06 F 19/00

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw Des
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☐ 2. Document ID: WO 2004108364 A1, US 6822412 B1, US 20040251866 A1

L5: Entry 2 of 34

File: DWPI

Dec 16, 2004

DERWENT-ACC-NO: 2005-009857

DERWENT-WEEK: 200501

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TITLE: Industrial robot programming method for machining application e.g. fettling, involves determining object coordinate system based on measuring coordinate system by best fit between measurements and mathematical model

INVENTOR: BRANTMARK, H; BROGARDH, T ; GAN, Z ; LI, X ; ROSSANO, G ; SUN, Y ; TANG, Q ; BROGAERD, T

PRIORITY-DATA: 2003US-0458810 (June 11, 2003)

### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 2004108364 A1</u>	December 16, 2004	E	000	B25J009/16

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US 6822412 B1	November 23, 2004	020	B25J009/04
US 20040251866 A1	December 16, 2004	000	B25J009/18

INT-CL (IPC): B25 J 9/04; B25 J 9/16; B25 J 9/18; G05 B 19/19; G05 B 19/408; G05 B 19/42

ABSTRACTED-PUB-NO: US 6822412B  
BASIC-ABSTRACT:

NOVELTY - The method involves selecting an object reference structure on a work object and defining a mathematical model for the object reference structure. A position-measuring unit e.g. digitizer, provides measurements on a surface of the structure. An object coordinate system is determined in relation to a measuring coordinate system by best fit between the measurements and the mathematical model of the structure.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a computer program product for programming of an industrial robot having a robot coordinate system for an application comprising a tool having a tool coordinate system and a work object to be processed by a tool.

USE - Used for programming an industrial robot having a robot coordinate system, for an machining application e.g. fettling, debarring, milling, sawing, grinding, drilling, comprising a tool having a tool coordinate system and a work object to be process by the tool (claimed).

ADVANTAGE - The method enables a fast and easy robot programming and provides a high accuracy in robot application. The method defectively combines the effect of of-line programming with the accuracy of lead through programming. The method enables a totally safe programming since the robot does not need to work during programming and calibration, thus robot accuracy does not depend upon the total kinematic and geometrical errors of a robotic cell.

DESCRIPTION OF DRAWING(S) - The drawing shows an industrial robot application and the coordinate systems.

Industrial robot 1

Tool 2

Work object 3

Fixture 4

Base 6

Support 7

Robot arm 8

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw.Des
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☐ 3. Document ID: CN 1514190 A

L5: Entry 3 of 34

File: DWPI

Jul 21, 2004

DERWENT-ACC-NO: 2004-710735

DERWENT-WEEK: 200470

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h e b b g e e f e eh ef b e

TITLE: Adsorption type mixed helium hydrogen pulse pipe refrigerating method

INVENTOR: CHEN, G; GAN, Z; HUANG, Y

PRIORITY-DATA: 2003CN-0128816 (May 19, 2003)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1514190 A</u>	July 21, 2004		000	F25B009/12

INT-CL (IPC): F25 B 9/12

ABSTRACTED-PUB-NO: CN 1514190A

## BASIC-ABSTRACT:

NOVELTY - In the refrigerator, back heating performance can be improved through increasing induced specific heat volume correspondingly under absorption action of back heater packing to hydrogen composition by utilizing both high specific heat volume of back heater itself and high refrigerating effect in refrigerating area required by mixture media of helium and hydrogen. The refrigerating performance of tube can be raised a lot in degree by utilizing combined action of both.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw	Desc
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☐ 4. Document ID: CN 1483824 A

L5: Entry 4 of 34

File: DWPI

Mar 24, 2004

DERWENT-ACC-NO: 2004-581460

DERWENT-WEEK: 200457

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TITLE: Method for separation extracting polyhydroxy fatty acid ester from bacterial thallus

INVENTOR: CHEN, G; GAN, Z

PRIORITY-DATA: 2002CN-0130725 (September 18, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1483824 A</u>	March 24, 2004		000	C12P001/04

INT-CL (IPC): C08 G 63/06; C12 P 1/04

ABSTRACTED-PUB-NO: CN 1483824A

## BASIC-ABSTRACT:

NOVELTY - The present invention discloses a method for separating and extracting polyhydroxy fatty acid ester from bacterial thallus. Said invented technical scheme is characterized by that it uses one kind of several kinds of five-and/or four-carbon alcohol to break the wall of wet-dried cell thallus in which the polyhydroxy fatty acid ester is self formed and extract the polyhydroxy fatty acid ester. In order to raise the extraction efficiency of PHA from wet cell, before extraction the weight cell can be pre-treated by using hydrophilic and oleophilic reagent.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw	Desc
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5. Document ID: US 6812665 B2, US 20030200042 A1, WO 2003089197 A1, AU 2003224540 A1

L5: Entry 5 of 34

File: DWPI

Nov 2, 2004

DERWENT-ACC-NO: 2003-875498

DERWENT-WEEK: 200472

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TITLE: Virtual robot tool center point calibration method, involves measuring relative error of sample work piece based on which work object co-ordinate compensation matrix is calculated to calibrate tooling system

INVENTOR: GAN, Z; SUN, Y; TANG, Q

PRIORITY-DATA: 2002US-0126988 (April 19, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 6812665 B2</u>	November 2, 2004		000	G05B019/19
<u>US 20030200042 A1</u>	October 23, 2003		019	G06F019/00
<u>WO 2003089197 A1</u>	October 30, 2003	E	000	B25J009/16
<u>AU 2003224540 A1</u>	November 3, 2003		000	B25J009/16

INT-CL (IPC): B25 J 9/16; G05 B 19/19; G05 B 19/401; G05 B 19/418; G06 F 19/00

ABSTRACTED-PUB-NO: US20030200042A

BASIC-ABSTRACT:

NOVELTY - The tool center point (TCP) of the robot is determined and the relative reference between the robot and a sample workpiece is created. The relative error of the workpiece is measured, to calculate the calibration parameters. A work-object coordinate compensation matrix is calculated according to calibration parameters to calibrate the tooling system.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) relative calibration system;

(2) tooling calibration system.

USE - For calibrating virtual robot tool center point in a robotic work cell and also for calibrating working factory floor.

ADVANTAGE - Eliminates and corrects the errors to create highly accurate paths for robot operation. Since relative error measurement and calibration matrix calculation are performed in real-time, usage operation of robot is easy.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating the procedure of relative work cell calibration.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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6. Document ID: EP 1474271 A1, WO 2003064118 A1, US 20030167103 A1, AU 2003210793 A1

L5: Entry 6 of 34

File: DWPI

Nov 10, 2004

DERWENT-ACC-NO: 2003-627588

DERWENT-WEEK: 200473

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TITLE: Calibrating a robot used for industrial applications, comprises of disposing a calibration tool in the robot spindle

INVENTOR: BRANTMARK, H; BROGARDH, T ; GAN, Z ; TANG, Q

PRIORITY-DATA: 2002US-353671P (January 31, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1474271 A1</u>	November 10, 2004	E	000	B25J009/16
<u>WO 2003064118 A1</u>	August 7, 2003	E	022	B25J009/16
<u>US 20030167103 A1</u>	September 4, 2003		000	G05B019/18
<u>AU 2003210793 A1</u>	September 2, 2003		000	B25J009/16

INT-CL (IPC): B25 J 9/16; G05 B 19/04; G05 B 19/18

ABSTRACTED-PUB-NO: WO2003064118A

## BASIC-ABSTRACT:

NOVELTY - Robot (12) having a spindle (18) is calibrated by disposing a calibration tool (50) in the robot spindle (18). The position of the calibration tool (50) is measured. An axis of the spindle (18) is determined based on the measured position. A calibration tool center point is determined based on the measured position. A robot tool rotation axis is determined based on the determined spindle axis, robot tool center point, the determined calibration tool center point, and difference in length between the calibration tool (50) and a robot tool.

DETAILED DESCRIPTION - INDEPENDENT CLAIM included for the following:

(a) a system

USE - For industrial robots.

ADVANTAGE - No recalibration is required for different robot tools.

DESCRIPTION OF DRAWING(S) - The diagram show a robot system with calibration spindle 18

calibration tool 50

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw.Des
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☐ 7. Document ID: CN 1415800 A

L5: Entry 7 of 34

File: DWPI

May 7, 2003

DERWENT-ACC-NO: 2003-542554

DERWENT-WEEK: 200352

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TITLE: Paper with nano structural surface possessing characters of super

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hydrophobicity and self-cleaning

INVENTOR: GAN, Z ; GAO, J ; HUANG, X

PRIORITY-DATA: 2002CN-0147804 (December 10, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1415800 A</u>	May 7, 2003		000	D21H021/16

INT-CL (IPC): D21 H 21/16

ABSTRACTED-PUB-NO: CN 1415800A

BASIC-ABSTRACT:

NOVELTY - An ultra hydrophobic self-cleaning paper with nano surface structure is made up by using silica gel (703,704, or 705), ethyl acetate, n-butyl acetate and banana oil to prepare an ultra hydrophobic self-cleaning nano layer on the surface of ordinary paper. Its advantages are high impressionability and writeability, high water-proof and self-cleaning function.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw Desc
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8. Document ID: EP 1279961 A2, US 20030027193 A1

L5: Entry 8 of 34

File: DWPI

Jan 29, 2003

DERWENT-ACC-NO: 2003-334973

DERWENT-WEEK: 200334

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TITLE: Measuring levels of therapeutic compounds in a sample comprises inserting a probe into a reaction vessel, where the therapeutic compound and the substrate contact the biological substance and interact within the biological substance

INVENTOR: GAN, Z ; WALLMAN, J ; TEODORESCU, M

PRIORITY-DATA: 2001US-307570P (July 23, 2001), 2002US-0201143 (July 23, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1279961 A2</u>	January 29, 2003	E	011	G01N033/573
<u>US 20030027193 A1</u>	February 6, 2003		010	A61K031/70

INT-CL (IPC): A01 N 43/04; A61 K 31/70; C12 Q 1/37; C12 Q 1/68; C12 Q 1/70; G01 N 33/53; G01 N 33/542; G01 N 33/543; G01 N 33/573; G01 N 33/58

ABSTRACTED-PUB-NO: EP 1279961A

BASIC-ABSTRACT:

NOVELTY - Measuring levels of therapeutic compound in a sample comprises inserting a probe into a reaction vessel (the therapeutic compound and the substrate contact the biological substance and interact within the biological substance so that a label is released).

DETAILED DESCRIPTION - Measuring levels of therapeutic compound in a sample comprises:

h e b b g e e e f e e h e f b e

- (a) providing a reaction vessel containing a sample including a therapeutic compound having a biological activity and a biological substance;
- (b) providing a probe coated with a substrate for the biological substance, the substrate having a detectable label;
- (c) inserting a probe into a reaction vessel, where the therapeutic compound and the substrate contact the biological substance and interact within the biological substance such that label is release;
- (d) removing the probe from the reaction;
- (e) measuring the quantity of detectable label, thus measuring the level of therapeutic compound; and
- (f) calculating the concentration of the therapeutic compound in the sample after the inhibitory effects of the therapeutic compound are compared to those generated by a standard curve generated with various concentrations of known amount of therapeutic compound or by calculating the percentage of inhibition and expressing the results in arbitrary units.

An INDEPENDENT CLAIM is included for a kit for measuring levels of a therapeutic compound is a sample comprising a standard, at least one positive or negative control, a protease in a stabilizing buffer, a microtiter plate, and a lid with pin for the microtiter plate.

USE - The method is useful for measuring, measuring, monitoring and detecting the identity, amount, and activity of therapeutic compounds. It is also useful for screening compounds for discovering drugs. The kit is useful for measuring a therapeutic compound is a sample.

ADVANTAGE - The invention provides an assay method that is highly sensitive and is suitable for high throughput assays. The method is easy to use and require only a few steps for obtaining results.

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KWC	Draw Des
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9. Document ID: CN 1389694 A

L5: Entry 9 of 34

File: DWPI

Jan 8, 2003

DERWENT-ACC-NO: 2003-355535

DERWENT-WEEK: 200334

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TITLE: Pulse tube refrigerator with new-type double-valve bidirectional air intake structure

INVENTOR: CHEN, G; GAN, Z; JIANG, Y

PRIORITY-DATA: 2002CN-0112248 (June 25, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1389694 A</u>	January 8, 2003		000	F25B041/04

INT-CL (IPC): F25 B 41/04

ABSTRACTED-PUB-NO: CN 1389694A

BASIC-ABSTRACT:

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NOVELTY - A new type pulse line refrigerator of double-valve two-way air-intake structure comprises air chamber, micro-hole valve, pulse line hot-end heat exchanger, pulse line, pulse line cold-end heat exchanger, cold end, cold end heat exchanger of the heat regenerator, heat regenerator and hot end heat exchanger of the heat regenerator. Between said pulse line hot end heat exchanger and the heat regenerator hot end heat exchanger is set a double-valve two-way air-intake valve. Said invention can effectively control and regulate the running of the straight flow which circulates in the closed loop of the heat regenerator and the pulse line.

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KMC	Draw	Desc
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10. Document ID: CN 1389329 A

L5: Entry 10 of 34

File: DWPI

Jan 8, 2003

DERWENT-ACC-NO: 2003-343749

DERWENT-WEEK: 200333

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TITLE: Automatic nail feeder

INVENTOR: GAN, Z

PRIORITY-DATA: 2002CN-0137899 (July 3, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1389329 A</u>	January 8, 2003		000	B25C005/16

INT-CL (IPC): B25 C 5/16

ABSTRACTED-PUB-NO: CN 1389329A

BASIC-ABSTRACT:

NOVELTY - The autoamtic nail-feeding device has a nail tray, said nail tray is positioned under the gun head, on the nail tray the gripping jaw devices are uniformly distributed, exterior of the nail tray is connected with external shell and the centre of the anil trya is connected with coiled spring. The gripping jaw in the nail tray and gripping jaw in the gun head are used for holding nail, it has no need of special equipment to mount the nail on special-purpose nail band, and can implement nail-driving or nail-turning operation of automatic tool. Said nail-feeding device is novel in structure, simple in operation and high in working efficiency and working quality.

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KMC	Draw	Desc
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11. Document ID: CN 1356280 A

L5: Entry 11 of 34

File: DWPI

Jul 3, 2002

DERWENT-ACC-NO: 2002-609619

DERWENT-WEEK: 200266

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TITLE: Permanently self-cleaning nano-ceramic glaze

h e b b g e e e f e e h e f b e

INVENTOR: GAN, Z; GAO, J ; HUANG, X

PRIORITY-DATA: 2002CN-0115404 (January 4, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1356280 A</u>	July 3, 2002		000	C03C008/00

INT-CL (IPC): C03 C 8/00; C03 C 8/02

ABSTRACTED-PUB-NO: CN 1356280A

## BASIC-ABSTRACT:

NOVELTY - A permanently self-cleaning nano-ceramic glaze is prepared by adding more kinds of nano-oxide to ordinary ceramic glaze.

USE - Self-cleaning nano-ceramic glaze.

ADVANTAGE - Permanently self-clearing and hydrophobic functions, simple preparing process, wide temperature range, and high resistance to acid and alkali.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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☐ 12. Document ID: CN 1356198 A

L5: Entry 12 of 34

File: DWPI

Jul 3, 2002

DERWENT-ACC-NO: 2002-609596

DERWENT-WEEK: 200266

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TITLE: Automatic screw driver

INVENTOR: GAN, Z

PRIORITY-DATA: 2002CN-0112515 (January 8, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1356198 A</u>	July 3, 2002		000	B25B021/00

INT-CL (IPC): B25 B 21/00

ABSTRACTED-PUB-NO: CN 1356198A

## BASIC-ABSTRACT:

NOVELTY - An automatic screw driver with autoamtic screw feeding function has a base, a screw box containing screws and matched with said base, and a screw driver. The said screw box features that its screw discharging hole is located at the position of screw sleeve of base, a screw feeding pusher is just aligned to said screw discharging hole, and after a screw has been turned by said screw driver, next screw is fed into screw sleeve of base. Its advantages include continuously automatic working, convenient operation and high productivity.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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☐ 13. Document ID: CN 1341897 A

L5: Entry 13 of 34

File: DWPI

Mar 27, 2002

DERWENT-ACC-NO: 2002-436495

DERWENT-WEEK: 200247

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TITLE: Method for displaying multinational character, pattern and symbol on screen

INVENTOR: GAN, Z; LIAN, B ; XIE, X

PRIORITY-DATA: 2000CN-0124405 (September 4, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1341897 A</u>	March 27, 2002		000	G06F017/00

INT-CL (IPC): G06 F 3/14; G06 F 17/00

ABSTRACTED-PUB-NO: CN 1341897A

## BASIC-ABSTRACT:

NOVELTY - The method includes; taking object to be displayed; creating a blank picture; and print the object to be displayed on the picture. The picture is converted to a file to be outputted and the memory space is released. The data to be displayed are taken from memory and the data is displayed on a LCD faceplate.

ADVANTAGE - ASCII and non-ASCII characters, graphics, and symbols can be converted to a graphic being displayed on a screen by the above procedures without need of build-in font or a device to store font, it order to prevent display mess codes.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw.Des
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☐ 14. Document ID: CN 1329238 A

L5: Entry 14 of 34

File: DWPI

Jan 2, 2002

DERWENT-ACC-NO: 2002-352905

DERWENT-WEEK: 200239

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TITLE: Cold storage type pulse tube refrigerating machine in which when refrigerator is stopped, the cooled device can normally stably work by means of the refrigeration quantity provided by cold storage device

INVENTOR: CHEN, G; GAN, Z

PRIORITY-DATA: 2000CN-0118431 (June 21, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1329238 A</u>	January 2, 2002		000	F25J001/02

INT-CL (IPC): F25 J 1/02

ABSTRACTED-PUB-NO: CN 1329238A

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## BASIC-ABSTRACT:

NOVELTY - The cold-storage pulsating pipe refrigerator includes compressor, heat regenerator, cold-end heat-exchanger, pulsating pipe, hot-end heat-exchanger, small hole valve, two-way air-intake valve and gas library, the end portion of cold-end heat-exchanger is equipped with phase separator and cold-storage device in turn. It adopts mixed gas as working fluid, its refrigerating gas is helium gas, and condensing gas is nitrogen gas, and when the refrigeration temperature is reached to below three-phase point of helium, the cold end of the pulsating pipe can produce gas-liquid-solid three-phase state, and the liquid-solid phase can be fed into cold-storage device after having been phase-separated; when the refrigerator is stopped, the cooled device can normally stably work by means of the refrigeration quantity provided by cold storage device, and the dynamic work of the machine can minimize noise interference of superconducting device.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Desc
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☐ 15. Document ID: WO 200125788 A1, AU 200076363 A, CA 2286414 A1

L5: Entry 15 of 34

File: DWPI

Apr 12, 2001

DERWENT-ACC-NO: 2001-328366

DERWENT-WEEK: 200143

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TITLE: Non-separation heterogenous assay for detecting, identifying, and measuring the concentration and activity of biological substances

INVENTOR: GAN, Z

PRIORITY-DATA: 1999CA-2286414 (October 4, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 200125788 A1</u>	April 12, 2001	E	018	G01N033/543
<u>AU 200076363 A</u>	May 10, 2001		000	G01N033/543
<u>CA 2286414 A1</u>	April 4, 2001	E	000	G01N033/532

INT-CL (IPC): C12 Q 1/34; C12 Q 1/68; G01 N 33/532; G01 N 33/542; G01 N 33/543; G01 N 33/566; G01 N 33/58

ABSTRACTED-PUB-NO: WO 200125788A

## BASIC-ABSTRACT:

NOVELTY - A system (I) for measuring a biological substance using competitive binding between biological substances, is new. The system comprises a vessel surface coated with reactant 1, a known amount of labeled reactant 3, and an unknown amount of reactant 2. The reactions of the reactants cause a change of the label signal of reactant 3, which is directly proportional to the amount of reactant 2.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) detecting the biological activity of a biological substance using the degradation of a substrate, comprising:

(a) the surface of a vessel coated with reactant 1 linked with a label;

(b) addition of reactant 2 which has biological activity into the reaction vessel, reactant 1 being hydrolyzed due to the activity of reactant 2; and

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(c) measuring the intensity of the label signal in the vessel, a change of the signal is directly proportional to the biological activity of the reactant 2; and

(2) detecting the amount of an inhibitor to a biological substance, comprising:

(a) the surface of a vessel coated with reactant 1 linked with a label;

(b) addition of a known amount of reactant 2 which has biological activity, an unknown amount of reactant 3 being an inhibitor of reactant 2 into the vessel, cleavage of reactant 1 is inhibited by the activity of reactant 3; and

(c) measuring the intensity of the label signal, a change is reciprocally proportional to the amount of reactant 3.

USE - For measuring the amount of a biological substance, particularly an inhibitor, in a sample, and for detecting biological activity of a biological substance (claimed).

ADVANTAGE - The method is simple and the signal generated can be measured directly.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw	Des
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☐ 16. Document ID: WO 200068415 A2, EP 1177443 A2, CA 2270639 A1, AU 200045317 A

L5: Entry 16 of 34

File: DWPI

Nov 16, 2000

DERWENT-ACC-NO: 2000-687651

DERWENT-WEEK: 200218

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TITLE: Measuring activity or concentration of bioactive molecule, useful e.g. for drug screening, by reacting the labeled molecule with immobilized capture reactant

INVENTOR: GAN, Z; MARQUARDT, R R

PRIORITY-DATA: 1999CA-2270639 (May 10, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 200068415 A2</u>	November 16, 2000	E	022	C12Q001/00
<u>EP 1177443 A2</u>	February 6, 2002	E	000	G01N033/543
<u>CA 2270639 A1</u>	November 10, 2000	E	000	G01N033/532
<u>AU 200045317 A</u>	November 21, 2000		000	C12Q001/00

INT-CL (IPC): C12 Q 1/00; C12 Q 1/68; G01 N 33/532; G01 N 33/543

ABSTRACTED-PUB-NO: WO 200068415A

BASIC-ABSTRACT:

NOVELTY - Measuring the activity or concentration of a bioactive molecule (I), comprising adding test sample (A), containing a detectable label and (I) to a vessel coated with a reactant (II) that interacts with (I), incubating so that some label is removed from the sample by binding to (II), transferring a soluble portion of (A) to a counting vessel, and measuring label in the vessel, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for measuring the activity or concentration of a bioactive molecule, comprising:

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- (a) coating a reaction vessel with a reactant which is capable of interacting with a bioactive molecule and which includes a detectable label;
- (b) adding to the reaction vessel a sample which includes the bioactive molecule having a biological activity;
- (c) releasing a quantity of detectable label from the reactant by incubating the vessel under conditions where the reactant and label contact the bioactive molecule and interact with the bioactive molecule;
- (d) transferring a soluble portion of the sample containing released label from the reaction vessel to a counting vessel; and
- (e) measuring the quantity of detectable label in the counting vessel.

USE - The method is useful for detecting, identifying and quantifying e.g. enzymes (or their inhibitors), lectins, receptors, antigens, antibodies etc., particularly for drug discovery.

ADVANTAGE - The method is very sensitive and suitable for high throughput assays. Soluble and bound phases are separated without requiring filtration or centrifuging and reagents for stopping reaction are not required.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw:Desc
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☐ 17. Document ID: US 6148248 A

L5: Entry 17 of 34

File: DWPI

Nov 14, 2000

DERWENT-ACC-NO: 2001-136363

DERWENT-WEEK: 200114

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TITLE: Lobing and thermal damage controller for shoe centerless grinding, removes lobe from periphery of workpiece using flexible curved shoe with lubricating material coating

INVENTOR: GAN, Z ; SUN, Y

PRIORITY-DATA: 1997US-0982733 (December 2, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 6148248 A</u>	November 14, 2000		008	G06F007/66

INT-CL (IPC): G06 F 7/66

ABSTRACTED-PUB-NO: US 6148248A

BASIC-ABSTRACT:

NOVELTY - A flexible curved shoe structure has an active filtering mechanism to remove lobe from curved periphery of cylindrical workpiece, during grinding. A lubricating material coating on rear shoe (13a) reduces heat at contact area of workpiece and shoe structure. An on-line vision based temperature control and monitoring device, regulates overheating of the workpiece.

DETAILED DESCRIPTION - The periphery of cylindrical workpiece, is supported by an automatic support, during grinding. The lobing is suppressed during workpiece rounding, using a control algorithm.

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USE - For shoe centerless grinding used in finishing of precision cylindrical components.

ADVANTAGE - The geometric and kinematics set up of support shoes are established optimally, by which workpiece is set at most stable work holding stability and hence reduces lobing generation to minimum value. The visual sensor monitors overheat at contact areas of workpiece and rear shoe which is cooled using lubricant, thereby preventing thermal damage of workpiece.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic diagram of lobing and thermal damage control for shoe centerless grinding.

Rear shoe 13a

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw	Des
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18. Document ID: KR 416513 B, WO 200003846 A1, AU 9953904 A, EP 1097030 A1, US 6282461 B1, CN 1309598 A, KR 2001079500 A, EP 1097030 B1, DE 69901118 E, ES 2178458 T3

L5: Entry 18 of 34

File: DWPI

Jan 31, 2004

DERWENT-ACC-NO: 2000-195018

DERWENT-WEEK: 200428

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TITLE: Tube verification system for determining physical position of robot arm manipulating tube ends in nuclear or other steam generator

INVENTOR: FITZGIBBONS, L T; KATZ, J S ; ZHONGXUE, G ; GAN, Z

PRIORITY-DATA: 1999US-0349981 (July 9, 1999), 1998US-092927P (July 15, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>KR 416513 B</u>	January 31, 2004		000	B25J019/04
<u>WO 200003846 A1</u>	January 27, 2000	E	032	B25J019/02
<u>AU 9953904 A</u>	February 7, 2000		000	B25J019/02
<u>EP 1097030 A1</u>	May 9, 2001	E	000	B25J019/02
<u>US 6282461 B1</u>	August 28, 2001		000	G05B015/00
<u>CN 1309598 A</u>	August 22, 2001		000	B25J019/02
<u>KR 2001079500 A</u>	August 22, 2001		000	B25J019/04
<u>EP 1097030 B1</u>	March 27, 2002	E	000	B25J019/02
<u>DE 69901118 E</u>	May 2, 2002		000	B25J019/02
<u>ES 2178458 T3</u>	December 16, 2002		000	B25J019/02

INT-CL (IPC): B25 J 19/02; B25 J 19/04; G05 B 15/00; G06 K 9/00; G06 K 9/36; G06 K 9/46; G06 T 7/20

ABSTRACTED-PUB-NO: EP 1097030B

BASIC-ABSTRACT:

NOVELTY - Successive frames of the video output of a TV camera (16) mounted on the end effector (EE) of a robot arm (24) are processed to recognize the passage of tube ends (14) across the visual field of the camera and indicate the velocity, acceleration and direction of the tube ends as the images move. Resulting changes in position of the end effector are compared against the position information of the robot arm to verify the latter. Any mismatch requires a system recalibration.

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Arrangements are also provided to maintain optimal spacing  $z(n)$  between the end effector and the tube ends.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method of verifying tube position, an end effector positioner, and a method of positioning an end effector system.

USE - For inspecting tube ends in steam generators in a nuclear or other power generator.

ADVANTAGE - Ensures safety by providing independent verification of the position of the end effector in a steam generator.

DESCRIPTION OF DRAWING(S) - The drawing shows a side view of a tube sheet.

TV camera 16

End effector EE

Tube ends 14

Optimal spacing  $z(n)$

ABSTRACTED-PUB-NO:

US 6282461B EQUIVALENT-ABSTRACTS:

NOVELTY - Successive frames of the video output of a TV camera (16) mounted on the end effector (EE) of a robot arm (24) are processed to recognize the passage of tube ends (14) across the visual field of the camera and indicate the velocity, acceleration and direction of the tube ends as the images move. Resulting changes in position of the end effector are compared against the position information of the robot arm to verify the latter. Any mismatch requires a system recalibration. Arrangements are also provided to maintain optimal spacing  $z(n)$  between the end effector and the tube ends.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method of verifying tube position, an end effector positioner, and a method of positioning an end effector system.

USE - For inspecting tube ends in steam generators in a nuclear or other power generator.

ADVANTAGE - Ensures safety by providing independent verification of the position of the end effector in a steam generator.

DESCRIPTION OF DRAWING(S) - The drawing shows a side view of a tube sheet.

TV camera 16

End effector EE

Tube ends 14

Optimal spacing  $z(n)$

NOVELTY - Successive frames of the video output of a TV camera (16) mounted on the end effector (EE) of a robot arm (24) are processed to recognize the passage of tube ends (14) across the visual field of the camera and indicate the velocity, acceleration and direction of the tube ends as the images move. Resulting changes in position of the end effector are compared against the position information of the robot arm to verify the latter. Any mismatch requires a system recalibration. Arrangements are also provided to maintain optimal spacing  $z(n)$  between the end effector and the tube ends.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method of verifying tube position, an end effector positioner, and a method of positioning an end effector system.

USE - For inspecting tube ends in steam generators in a nuclear or other power generator.

ADVANTAGE - Ensures safety by providing independent verification of the position of the end effector in a steam generator.

DESCRIPTION OF DRAWING(S) - The drawing shows a side view of a tube sheet.

TV camera 16

End effector EE

Tube ends 14

Optimal spacing z(n)

WO 200003846A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw	Desc
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19. Document ID: WO 9954734 A1, EP 1071954 A1, CA 2228821 A1, AU 9935908 A

L5: Entry 19 of 34

File: DWPI

Oct 28, 1999

DERWENT-ACC-NO: 2000-038526

DERWENT-WEEK: 200108

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TITLE: Measuring the activity or concentration of a bio-molecule

INVENTOR: GAN, Z; MARQUARDT, R

PRIORITY-DATA: 1998CA-2228821 (April 16, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9954734 A1</u>	October 28, 1999	E	025	G01N033/543
<u>EP 1071954 A1</u>	January 31, 2001	E	000	G01N033/543
<u>CA 2228821 A1</u>	October 16, 1999	E	000	C12Q001/68
<u>AU 9935908 A</u>	November 8, 1999		000	

INT-CL (IPC): C12 Q 1/34; C12 Q 1/37; C12 Q 1/48; C12 Q 1/68; G01 N 33/53; G01 N 33/543; G01 N 33/566

ABSTRACTED-PUB-NO: WO 9954734A

BASIC-ABSTRACT:

NOVELTY - A method for measuring the activity or concentration of a bio-molecule comprises: (a) providing a reaction vessel containing a sample including a bio-molecule having a biological activity; (b) providing a probe coated with a reactant, which is capable of interacting with the bio-molecule; and (c) adding a known quantity of a compound with a detectable label to the sample.

DETAILED DESCRIPTION - The method further comprises (d) inserting the probe into the reaction vessel such that the bio-molecule and the detectable label contact the

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reactant and interact with the reactant such that label is bound to the reactant; (e) removing the probe from the reaction vessel; and (f) measuring the quantity of detectable label in the reaction vessel and/or on the probe.

USE - No further details.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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20. Document ID: RU 2238951 C2, WO 9950302 A1, AU 9867164 A, BR 9815788 A, EP 1066328 A1, CN 1291199 A, KR 2001042383 A, US 20020164712 A1, AU 765574 B, JP 2004505601 W, MX 2000009564 A1

L5: Entry 20 of 34

File: DWPI

Oct 27, 2004

DERWENT-ACC-NO: 1999-610839

DERWENT-WEEK: 200476

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TITLE: New chimeric proteins containing human growth hormone fragment, used particularly for the production of human insulin

INVENTOR: GAN, Z

PRIORITY-DATA: 1998WO-CN00052 (March 31, 1998)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>RU 2238951 C2</u>	October 27, 2004		000	C07K019/00
<u>WO 9950302 A1</u>	October 7, 1999	E	045	C07K019/00
<u>AU 9867164 A</u>	October 18, 1999		000	C07K019/00
<u>BR 9815788 A</u>	November 28, 2000		000	C07K019/00
<u>EP 1066328 A1</u>	January 10, 2001	E	000	C07K019/00
<u>CN 1291199 A</u>	April 11, 2001		000	C07K019/00
<u>KR 2001042383 A</u>	May 25, 2001		000	C07K019/00
<u>US 20020164712 A1</u>	November 7, 2002		000	C07H021/04
<u>AU 765574 B</u>	September 25, 2003		000	C07K019/00
<u>JP 2004505601 W</u>	February 26, 2004		076	C12N015/09
<u>MX 2000009564 A1</u>	March 1, 2004		000	C07K014/61

INT-CL (IPC): C07 H 21/04; C07 K 14/61; C07 K 14/62; C07 K 19/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 1:21; C12 N 5/06; C12 N 5/10; C12 N 9/64; C12 N 15/09; C12 N 15/62; C12 P 21/02; C12 R 1/19; C12 R 1:19; G01 N 33/68; C12 N 1/21; C12 R 1:19

ABSTRACTED-PUB-NO: WO 9950302A

BASIC-ABSTRACT:

NOVELTY - New chimeric proteins contain an N-terminal fragment of human growth hormone which acts as an intramolecular chaperone.

DETAILED DESCRIPTION - (A) A novel chimeric protein comprises, from N-terminus to C-terminus:

(a) a first peptidyl fragment consisting of an amino acid sequence that has at least 40% identity to a domain containing at least the first 20 N-terminal amino acids of human growth hormone (hGH) protein, in which the percentage identity is determined over an amino acid sequence of identical size to the domain of hGH;

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(b) an Arg residue, or a Lys residue, or a second peptidyl fragment consisting of at least 2 amino acids in which peptidyl fragment the most C-terminal amino acid residue is an Arg or a Lys residue, and

(c) a third peptidyl fragment consisting of an amino acid sequence containing more than 2 cysteine residues, which peptidyl fragment is not a portion of hGH protein.

INDEPENDENT CLAIMS are also included for the following:

(1) a chimeric protein consisting of an amino acid sequence (I) or (II) of 107 or 150 amino acids, respectively (sequences are given in the specification);

(2) an isolated nucleic acid comprising a nucleotide sequence (NS) encoding a chimeric protein as in (A);

(3) an isolated nucleic acid comprising a NS encoding a chimeric protein as in (1);

(4) an isolated nucleic acid comprising a NS complementary to a NS as in (2);

(5) an isolated nucleic acid hybridizable to a NS encoding the first, second and third peptidyl fragments of DNA as in (2);

(6) a recombinant cell containing nucleic acid as in (2) or (3);

(7) a process for obtaining a correctly folded first insulin-precursor-containing chimeric protein (IPCCP), comprising contacting an incorrectly folded second IPCCP, which second IPCCP consists of an intramolecular chaperone (IMC) like peptidyl fragment separated from the insulin precursor by one or more cleavable amino acid residues, with at least one chaotropic auxiliary agent in an aqueous medium, where the IMC like peptidyl fragment:

(a) contains 20 to 200 amino acid residues;

(b) is not the insulin precursor or a portion; and

(c) improves the insulin precursor folding such that the yield of the correctly folded first IPCCP when the incorrectly folded second IPCCP is contacted with the chaotropic auxiliary agent is higher than the yield of the correctly folded insulin precursor when the incorrectly folded insulin precursor, which does not contain the IMC like peptidyl fragment, is contacted with the same chaotropic auxiliary agent, and

(8) an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor, comprising:

(a) changing the amino acid sequence of the first peptidyl fragment of the chimeric protein as in (A), obtaining the chimeric protein with the changes, contacting the chimeric protein with the changes with at least one chaotropic auxiliary agent in an aqueous medium under conditions such that the chimeric protein folds correctly, and measuring the folding yield of the chimeric protein with the changes;

(b) obtaining the same chimeric protein used in (a), but without any amino acid sequence changes as in (a), contacting the chimeric protein without any amino acid sequence changes as in (a) with at least one chaotropic auxiliary agent in an aqueous medium under the same conditions as in (a), and measuring the folding yield of the chimeric protein, and

(c) comparing the folding yield of the chimeric proteins measured in (a) and (b) respectively; in which a yield measured in (a) that equals or is greater than the yield measured in (b) indicates that the amino acid sequence improves folding of the insulin precursor.

USE - The hGH sequences are used as IMC sequences, particularly for the production of human insulin.

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ADVANTAGE - The methods can provide human insulin with correctly linked cysteine bridges with fewer necessary procedural steps, and hence resulting higher yield of human insulin. The IMC sequences not only protect insulin sequences from intracellular degradation by a microorganism host, but also promote the folding of the fused insulin precursor, facilitate the solubility of the fusion protein and decrease the intermolecular interactions among the fusion proteins, thus allowing folding of the fused insulin precursor at a commercially significant high concentration, eliminate the procedural steps of cyanogen bromide cleavage, oxidative sulfitolysis and the related purification steps, and eliminate the use of high concentration of mercaptan or the use of hydrophobic absorbent resins.

FULL	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw	Des
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21. Document ID: US 5878151 A, KR 249082 B1, KR 98032681 A

L5: Entry 21 of 34

File: DWPI

Mar 2, 1999

DERWENT-ACC-NO: 1999-203418

DERWENT-WEEK: 200122

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TITLE: Camera position detection method for inspection robot

INVENTOR: FITZGIBBONS, L T; GAN, Z; KATZ, J S; TANG, Q

PRIORITY-DATA: 1996US-0740702 (October 31, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 5878151 A</u>	March 2, 1999		022	G06K009/00
<u>KR 249082 B1</u>	March 15, 2000		000	G06T007/20
<u>KR 98032681 A</u>	July 25, 1998		000	G06T007/20

INT-CL (IPC): G06 K 9/00; G06 T 7/20

ABSTRACTED-PUB-NO: US 5878151A

BASIC-ABSTRACT:

NOVELTY - A set of digital filter images (H1,H2) is produced based on discrete images (S1,1;S2,1) obtained image sequences (S1,i and S2,i) where i=1 to N. Then other discrete images are compared with filter image, the relative position of camera with respect to specific point is determined.

DETAILED DESCRIPTION - A continuously varying image signal is generated based on movement of camera (204) with respect to various inspection objects (10). The image signal is digitized by a computer and S' discrete images at time sequence T' is generated. The comparison of image data is performed using correlation value. Then peak correlation value for comparison stage is determined. Then the camera position obtained according to comparison data is recorded according to positional variation of object.

USE - For inspection robot used for inspecting and servicing of steam generator tubes or other equipment in nuclear plant.

ADVANTAGE - The correlation quality is ensured, as the reference object images are generated using similar set of images within short period. Simplifies tracking of camera position with respect to object, by connecting the correlation peaks sequentially.

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DESCRIPTION OF DRAWING(S) - The figure shows a flow chart explaining object tracking process, schematic view of camera under inspection state and schematic view of image positions relative to camera, respectively.

Inspection objects 10

Camera 204

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw	Desc
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22. Document ID: US 5838882 A, KR 249083 B1, KR 98032680 A

L5: Entry 22 of 34

File: DWPI

Nov 17, 1998

DERWENT-ACC-NO: 1999-023899

DERWENT-WEEK: 200124

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TITLE: Robotic control system for servicing and inspection of steam generator - computes force and torque applied to effector during insertion of tool, based on which arm position is controlled using processed and reflected image patterns

INVENTOR: FITZGIBBONS, L T; GAN, Z; KATZ, J S; TANG, Q

PRIORITY-DATA: 1996US-0741900 (October 31, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 5838882 A</u>	November 17, 1998		024	G05B013/00
<u>KR 249083 B1</u>	April 1, 2000		000	B25J009/16
<u>KR 98032680 A</u>	July 25, 1998		000	B25J009/16

INT-CL (IPC): B25 J 9/00; B25 J 9/16; B25 J 13/00; G05 B 13/00; G05 B 19/00

ABSTRACTED-PUB-NO: US 5838882A

BASIC-ABSTRACT:

The system includes a robot (100) with a base (102) fixed with respect to a tubular sheet with several openings. An effector (200) in an articulated arm (104) of robot, holds a machine tool (202) and is actuated in a direction perpendicular to the tubular sheet, during insertion of tool inside the openings. The position of tool relative to opening is detected by a sensor assembly. A CCD camera (204) picks up the image of the tubular sheet, which is then processed by a computer (302) and outputs a digitized image.

The light beam from a laser source (216) is projected towards the tubular sheet by a reflector. A receiver in the effector, receives the reflected light pattern from the tubular sheet. The force and torque acting on the effector during insertion of tool inside the opening is detected by an elongate probe. The position of arm for centering the tool with respect to opening is regulated by the computer based on output of receiver and elongate probe.

USE - In nuclear power plant.

ADVANTAGE - Facilitates automatic control of robot according to tube positions. Simplifies service and inspection of heat exchanger, by regulating robot movement suitably. Enables fine adjustment of tool with respect to tubular openings, by automatic control of robot.

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Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMIC	Draw	Desc
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☐ 23. Document ID: US 5835880 A

L5: Entry 23 of 34

File: DWPI

Nov 10, 1998

DERWENT-ACC-NO: 1999-022862

DERWENT-WEEK: 199910

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TITLE: Vehicle control apparatus for tracking and following leading vehicle - has signal processor that outputs signals indicating distance between leading and following vehicles, and heading angle of leading vehicle based on characteristic features of mark image profile

INVENTOR: GAN, Z ; MOH, J ; TANG, Q ; WANG, W ; ZHANG, R

PRIORITY-DATA: 1995US-0503943 (July 19, 1995)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 5835880 A</u>	November 10, 1998		011	G06K009/00

INT-CL (IPC): G06 K 9/00; G08 G 1/017

ABSTRACTED-PUB-NO: US 5835880A

## BASIC-ABSTRACT:

The apparatus has a pair of video cameras (18) mounted on front end of a vehicle (16), that generate image data indicating the image of a distinct mark (14) located on rear side of a leading vehicle (12). Atleast one image profile is generated for each mark image based on average values for groups of image data points for noise suppression.

The maximum and minimum slope on the dimension defining the difference between edges of the image profile are observed for each image profile. A signal processor (22) generates signals indicating the distance between the leading and the following vehicle and the heading angle of the leading vehicle based on the characteristic features of the image profiles.

ADVANTAGE - Permits following vehicle to automatically follow and accurately track leading vehicle at safe distances.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMIC	Draw	Desc
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☐ 24. Document ID: US 5751610 A, KR 266508 B1, KR 98032365 A

L5: Entry 24 of 34

File: DWPI

May 12, 1998

DERWENT-ACC-NO: 1998-297165

DERWENT-WEEK: 200134

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TITLE: On-line inspection robot work cell calibration - by assigning each tube opening coordinate in a database to a calibration zone, measuring environment irregularity errors and robot translation and rotation errors, etc.

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INVENTOR: FITZGIBBONS, L T; GAN, Z; KATZ, J S ; TANG, Q

PRIORITY-DATA: 1996US-0741898 (October 31, 1996)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5751610 A	May 12, 1998		022	G01C025/00
<u>KR 266508 B1</u>	September 15, 2000		000	G21C017/017
<u>KR 98032365 A</u>	July 25, 1998		000	G21C017/017

INT-CL (IPC): G01 C 25/00; G21 C 17/017

ABSTRACTED-PUB-NO: US 5751610A

## BASIC-ABSTRACT:

A robot for inspecting the tubes in a nuclear steam generator while out of service is controlled by a computer and optionally remotely by an operator. The robot comprises a base fixed with respect to the tube sheet, an articulated arm which moves in parallel to the tube sheet and an end effector carried by the arm for sequential positioning in a robot coordinate system, to register sequentially with a number of selected tube openings. A method for calibrating the movement of the arm to account for environmental irregularity errors and robot translation and rotation errors comprises (a) storing a database of the coordinates of all the tube openings in the tube sheet coordination system having an origin on the tube sheet, (b) assigning each coordinate of the database to one of a number of calibration zones, (c) converting the environment irregularity errors and robot translation and rotation errors obtained from measurements taken at a single tube opening in each of the calibration zones into a unique equivalent robot coordinate offset which remains constant within the calibration zone.

USE - E.g. for inspecting heat exchanger tubes in a nuclear steam generator.

ADVANTAGE - The system provides an uninterrupted fast, efficient inspection schedule as the robot does not require frequent recalibration

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	IMC	Draw Des
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☐ 25. Document ID: US 6610494 B2, WO 9743438 A1, AU 9731224 A, EP 912757 A1, CN 1225134 A, JP 2000510242 W, US 20020164638 A1

L5: Entry 25 of 34

File: DWPI

Aug 26, 2003

DERWENT-ACC-NO: 1998-008899

DERWENT-WEEK: 200357

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TITLE: Solid phase assays for biologically active substances - comprise directly reacting substances with their substrates in the presence of an indicator

INVENTOR: GAN, Z; HAO, X ; WANG, G ; ZHANG, Z ; MARQUARDT, D R ; MARQUARDT, R R

PRIORITY-DATA: 1996US-017659P (May 14, 1996), 1999US-0180819 (May 20, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6610494 B2	August 26, 2003		000	G01N033/533
<u>WO 9743438 A1</u>	November 20, 1997	E	074	C12Q001/00

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<u>AU 9731224 A</u>	December 5, 1997		000	C12Q001/00
<u>EP 912757 A1</u>	May 6, 1999	E	000	C12Q001/00
<u>CN 1225134 A</u>	August 4, 1999		000	C12Q001/00
<u>JP 2000510242 W</u>	August 8, 2000		064	G01N033/543
<u>US 20020164638 A1</u>	November 7, 2002		000	G01N033/53

INT-CL (IPC): C12 Q 1/00; C12 Q 1/26; C12 Q 1/34; G01 N 33/15; G01 N 33/50; G01 N 33/53; G01 N 33/533; G01 N 33/537; G01 N 33/543; G01 N 33/566; G01 N 33/573

ABSTRACTED-PUB-NO: WO 9743438A

BASIC-ABSTRACT:

Solid phase assays for biologically active substances comprises detecting the amount of biological activity (BA) of a substance, the method comprises: (a) binding to a surface a first component which is conjugated to a first indicator; (b) contacting a sample containing a second component having unknown BA to the conjugated first component such that the BA between the first and second component will unbind the first component; (c) removing the sample after a fixed reaction time, and (d) determining the amount of remaining bound first component, where there is a reciprocal relationship between the amount of BA and the remaining bound first component. Also claimed are: (1) a method for detecting via a solid-phase assay the amount of an inhibitor of BA of a biologically active substance utilising the inhibition of BA comprising: (a) binding to a surface a first component as above; (b) contacting a sample containing a known amount of a second component having known BA and an unknown amount of a third component being an inhibitor of the second component to the first component in a reaction mixture under conditions such that the BA between the first and second component will unbind the first component and the third component will interfere with the reaction between the first and second component; (c) removing the sample, and (d) determining the amount of remaining bound first component where there is a direct relationship between the remaining bound conjugated first component and amount of the third component in the sample; (2) a method of detecting via a solid-phase assay the identity of a biologically active substance utilising inhibition of the BA, comprising: (a) binding to a surface a first component as above; (b) contacting a sample containing a known amount of a second component having generally known BA but unknown specificity and an unknown amount of a third component being an inhibitor of the second component to the first component in a reaction mixture under conditions such that the BA between the first and second component will unbind the first component and the third component will interfere with the reaction between the first and second component; (c) removing the sample after a predetermined time; and (d) determining the amount of remaining bound first component, where if there is a reduction of the amount of the bound first component, then the third component did interfere with the reaction between the first and second component thereby identifying the second component; (3) a method of detecting via a solid phase competitive assay the quantity of a BA substance utilising the BA of the substance, comprising: (a) binding to the surface a known quantity of a first component which binds to a biologically active second component; (b) contacting a sample containing an unknown quantity of the first component having BA and a known quantity of the second component coupled to a first indicator to the first component in a reaction mixture under conditions such that the first and second components will bind to each other due to the BA; (c) removing the sample, and (d) determining the amount of the second component coupled to a first indicator bound to the first component where a reciprocal relationship exists between the quantity of the second component coupled to a first indicator bound to the first component and the unknown quantity of the second component having BA in the sample; (4) a kit for performing the first assay which comprises: (a) a first component conjugated to a first indicator, (b) a known quantity of the biologically active second component, (c) suitable buffers and reagents for forming a reaction mixture under conditions such that the BA between the first and second components will unbind the first component, (d) reaction vessels which are precoated with the first component labelled with a first indicator; and (e) materials for the assays employed in determining the amount of first component labelled with the first indicator remaining in the reaction vessel; (5) a kits for performing (1), (2), (3) and (4).

USE - The methods are used for measuring the amounts and activities of enzymes such as proteases, beta-glucanases (BG), xylanases, cellulases, enzyme inhibitors such as ovomucoid or leupeptin, lectins and receptors (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWC	Draw	Des
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☐ 26. Document ID: CN 1144878 A

L5: Entry 26 of 34

File: DWPI

Mar 12, 1997

DERWENT-ACC-NO: 2001-032474

DERWENT-WEEK: 200105

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TITLE: Completely rotary engine

INVENTOR: GAN, Z; YOU, W

PRIORITY-DATA: 1995CN-0114870 (April 20, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1144878 A</u>	March 12, 1997		000	F02B053/02

INT-CL (IPC): F02 B 53/02

ABSTRACTED-PUB-NO: CN 1144878A

BASIC-ABSTRACT:

NOVELTY - A full-rotating engine is composed of big output wheel, cylinder fixed to the output wheel, piston 4-connecting-rod set, shaft, piston rod, cam rod and guide, guide track, cylinder supporter with wheel, bottom casing, air inlet and outlet rod, spark plug, carburetor, and supporters and features high output power and torque, easy sealing, simple structure and low cost.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWC	Draw	Des
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☐ 27. Document ID: US 5572449 A

L5: Entry 27 of 34

File: DWPI

Nov 5, 1996

DERWENT-ACC-NO: 1996-505658

DERWENT-WEEK: 199650

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TITLE: Appts. for automatically controlling longitudinal and lateral motion of following vehicle to follow preceding vehicle path - controls longitudinal and lateral motion of following vehicle by generating performance index based on integration w.r.t. time of differences between state vector components of two signals at two respective times

INVENTOR: GAN, Z; MOH, J; TANG, Q; WANG, W; ZHANG, R

PRIORITY-DATA: 1994US-0245865 (May 19, 1994)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 5572449 A</u>	November 5, 1996		009	B60T007/16

INT-CL (IPC): B60 T 7/16

ABSTRACTED-PUB-NO: US 5572449A

## BASIC-ABSTRACT:

The apparatus comprises a first device for generating first signals indicative of a state vector comprising velocity and position vector components of the preceding vehicle, where each position vector component is derived by integrating the corresponding velocity vector component with respect to time. A second device generates second signals indicative of a state vector comprising velocity and position vector components of the following vehicle, where each position vector component is derived by integrating the corresponding velocity vector component with respect to time.

A third device controls the longitudinal and lateral motion of the following vehicle by generating a performance index based on an integration with respect to time of the differences between the state vector components of a first signal at a first time and the corresponding state vector components of a second signal at a second time following the first time controlling the speed and steering of the following vehicle such that the performance index is less than a predetermined value to cause the following vehicle to follow the path of the preceding vehicle. At least one of the first and second devices includes an inertial navigation device mounted on the respective vehicle and generating velocity vector data indicative of the speed and direction of the respective vehicle.

USE/ADVANTAGE - Enables vehicles to automatically follow each other at safe distances under various speed, roadway and weather conditions. System automatically controls distance between preceding and following vehicles, preferably based on absolute velocities of both vehicles and following distance, which can be rapidly and accurately measured with known on-board sensors, making system reliable.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw Des
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☐ 28. Document ID: CN 1035574 C, CN 1109992 A

L5: Entry 28 of 34

File: DWPI

Aug 6, 1997

DERWENT-ACC-NO: 1997-373381

DERWENT-WEEK: 200455

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TITLE: Turbulent mechanism tester - has working fluid which flows from water supply device into two channels, one including water-taking tube, mixer where fluid is mixed with colour liquid into purplish red one

INVENTOR: GAN, Z; MAO, G ; WU, S

PRIORITY-DATA: 1995CN-0100166 (January 21, 1995)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1035574 C</u>	August 6, 1997		000	G09B023/12
<u>CN 1109992 A</u>	October 11, 1995		000	G09B023/12

INT-CL (IPC): G09 B 23/12

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ABSTRACTED-PUB-NO: CN 1109992A  
BASIC-ABSTRACT:

The turbulent mechanism tester has working fluid which flows from water supply device into two channels, one including water-taking tube, mixer where fluid is mixed with colour liquid into purplish red one, lower side of partition and displaying runner and the other including water tank for stabilizing, upper side of partition and displaying runner.

Regulating outlet valves can form a convergence of two water streams at different speeds for effective analysis of turbulent mechanism.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWMC	Draw:Des
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☐ 29. Document ID: CN 1109805 A

L5: Entry 29 of 34

File: DWPI

Oct 11, 1995

DERWENT-ACC-NO: 1997-373325  
DERWENT-WEEK: 199735  
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TITLE: Motor vehicle wheel rim pressing method - involves blanking steel sheet and pressing it prior to cutting and welding

INVENTOR: GAN, Z ; LI, J

PRIORITY-DATA: 1994CN-0113643 (November 17, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1109805 A</u>	October 11, 1995		000	B21K001/38

INT-CL (IPC): B21 K 1/38

ABSTRACTED-PUB-NO: CN 1109805A  
BASIC-ABSTRACT:

The method for manufacturing steel rims of cars or agricultural vehicles uses plate material instead of hot-rolled section. It includes such steps as blanking, tempering at 580-620 deg. C, pressing by over 500-% hydraulic press, forming into a disc, cutting out ends, welding, precompression, expansion, abrading welded seam, compression and punching for air gate holes.

The method features ease of production and high quality of rim.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWMC	Draw:Des
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☐ 30. Document ID: CN 1050169 C, CN 1103695 A

L5: Entry 30 of 34

File: DWPI

Mar 8, 2000

DERWENT-ACC-NO: 1997-290076  
DERWENT-WEEK: 200465  
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TITLE: Plaster for interior walls

INVENTOR: CHEN, W; GAN, Z; LU, Z

PRIORITY-DATA: 1993CN-0120416 (December 10, 1993)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1050169 C</u>	March 8, 2000		000	E04F013/04
<u>CN 1103695 A</u>	June 14, 1995		000	E04F013/02

INT-CL (IPC): C09 D 129/04; E04 F 13/02; E04 F 13/04

ABSTRACTED-PUB-NO: CN 1103695A

## BASIC-ABSTRACT:

The wall plaster for inner wall contains lime, dolomite, calcite and talcum and is produced by crushing the above-said material separately with stone crusher, mixing in certain weight proportion and grinding the mixture with grinder.

ADVANTAGE - The wall plaster of the present invention is odourless, non-toxic, high adhesive, base-proof and waterproof and has high white degree, long life and low cost.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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☐ 31. Document ID: CN 1065184 A

L5: Entry 31 of 34

File: DWPI

Oct 14, 1992

DERWENT-ACC-NO: 1993-197621

DERWENT-WEEK: 199325

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TITLE: Appts. for small-scale prodn. of soybean milk - comprises grinding mill, centrifugal fine filter device, dispensing tank, steam generator and circulating flash evaporator NoAbstract

INVENTOR: CHEN, Z; GAN, Z; WANG, G

PRIORITY-DATA: 1991CN-0101930 (March 25, 1991)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1065184 A</u>	October 14, 1992		000	A23C011/10

INT-CL (IPC): A23C 11/10; A23L 1/20; A47J 31/00

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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☐ 32. Document ID: EP 338634 A, AU 8933299 A, CN 1039441 A, DE 68914316 E, DK 8901921 A, EP 338634 B1, ES 2063113 T3, FI 8901916 A, JP 02138298 A, NO 8901662 A, NZ 228710 A, PT 90321 A, ZA 8902953 A

L5: Entry 32 of 34

File: DWPI

Oct 25, 1989

h e b b g e e e f e e h e f b e

DERWENT-ACC-NO: 1989-311082

DERWENT-WEEK: 198943

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TITLE: Viper venom polypeptide cpds. - useful in inhibiting platelet aggregation where strong antithrombotic activity of short duration is needed

INVENTOR: BENCEN, G H; FRIEDMAN, P A ; GAN, Z ; GARSKY, V M ; GOULD, R J ; JACOBS, J W ; POLOKOFF, M A ; GAN, Z R

PRIORITY-DATA: 1989US-0303757 (February 1, 1989), 1988US-0184649 (April 22, 1988), 1988US-0184653 (April 22, 1988)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 338634 A</u>	October 25, 1989	E	033	
<u>AU 8933299 A</u>	February 15, 1990		000	
<u>CN 1039441 A</u>	February 7, 1990		000	
<u>DE 68914316 E</u>	May 11, 1994		000	C07K007/08
<u>DK 8901921 A</u>	October 23, 1989		000	
<u>EP 338634 B1</u>	April 6, 1994	E	054	C07K007/08
<u>ES 2063113 T3</u>	January 1, 1995		000	C07K007/08
<u>FI 8901916 A</u>			000	
<u>JP 02138298 A</u>	May 28, 1990		000	
<u>NO 8901662 A</u>	November 13, 1989		000	
<u>NZ 228710 A</u>	October 28, 1992		000	C07K007/10
<u>PT 90321 A</u>	November 10, 1989		000	
<u>ZA 8902953 A</u>	December 27, 1989		000	

INT-CL (IPC): A61K 37/02; C07H 21/04; C07K 3/02; C07K 7/08; C07K 7/10; C07K 15/06; C12N 1/20; C12N 15/00; C12N 15/10; C12N 15/12; C12P 21/02

ABSTRACTED-PUB-NO: EP 338634A

## BASIC-ABSTRACT:

The following are claimed: (A) a polypeptide having the amino acid sequence (I)

X-Cys-R-R-R-Arg-Gly-Asp-R-R-R-R-R-Cys-Y (I)

(X = H or at least one amino acid; Y = OH or at least one amino acid; each R = any amino acid); (B) a method for purifying a polypeptide of the sequence (II)

Glu-Cys-Glu-Ser-Gly-Pro-Cys-Lys -Arg-Asn-Cys-Lys-Phe-Leu-Lys-Glu -Gly-Thr-Ile-Cys-Lys-Arg-Ala-Arg -Gly-Asp-Asp-Met-Asp-Asp-Tyr-Cys -Asn-Gly-Lys-Thr-Cys-Asp-Cys-Pro -Arg-Asn-Pro-His-Lys-Gly-Pro-Ala-Thr (II)

comprising (a) dissolving lyophilised Echis carinatus venom in slightly basic soln., (b) centrifuging the soln. to obtain supernatant, (c) loading supernatant onto a column and (d) determg. fractions contg. platelet aggregation inhibitory activity and concentrating under vacuum, (C) a gene comprising a recombinant DNA molecule encoding a polypeptide having the amino acid sequence (III)

H2-(Ch)-Cys-R-R-R-Arg-Gly -Asp-R-R-R-R-R-Cys-(Cx)-H (III)

(Ch = at least one amino acid; Cx = at least one amino acid; each R = an amino acid) where the polypeptide inhibits platelet aggregation; (D) a replicable microbial expression vector comprising a promoter-operator sequence capable of expressing heterologous proteins in a microorganism followed by DNA encoding a platelet aggregation inhibitor having an amino acid sequence (III), where transcription of the

h e b b g e e e f e e h e f b e

DNA in a transformant microorganism is under control of the promoter-operator.

USE - The polypeptides are eliminated from circulation rapidly and are partic. useful in inhibiting platelet aggregation in situations where a strong antithrombotic activity of short duration of effectiveness is needed. They may also be used to prevent myocardial infarction.

ABSTRACTED-PUB-NO:

EP 338634B EQUIVALENT-ABSTRACTS:

A polypeptide having the following amino acid sequence: X-Cys-R-R-R-Arg-Gly-Asp-R-R-R-R-Cys-Y wherein X is H or at least one amino acid; Y is OH or at least one amino acid; and each R, either the same or different, is any amino acid; with the exception of Trigramin.

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KWIC	Draw	Desc
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☐ 33. Document ID: CN 8605657 A

L5: Entry 33 of 34

File: DWPI

Feb 10, 1988

DERWENT-ACC-NO: 1989-093775

DERWENT-WEEK: 198913

COPYRIGHT 2005 DERWENT INFORMATION LTD

TITLE: Gear speed reducer - has fixed included angle between centre line of converter gear part and input shaft centre line NoAbstract

INVENTOR: GAN, Z

PRIORITY-DATA: 1986CN-0105657 (July 26, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 8605657 A</u>	February 10, 1988		006	

INT-CL (IPC): B23P 15/14; F16H 1/28

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KWIC	Draw	Desc
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☐ 34. Document ID: CN 8601215 A

L5: Entry 34 of 34

File: DWPI

Jul 16, 1986

DERWENT-ACC-NO: 1987-086688

DERWENT-WEEK: 198713

COPYRIGHT 2005 DERWENT INFORMATION LTD

TITLE: Colouring aluminium and its alloys - by anodic treatment in nickel sulphate, copper sulphate, boric acid and amino-sulphonic acid electrolyte NoAbstract

INVENTOR: GAN, Z; LI, Y

PRIORITY-DATA: 1986CN-0101215 (February 28, 1986)

PATENT-FAMILY:

h e b b g e e f e eh ef b e



# Record List Display

Page 30 of 30

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 8601215 A	July 16, 1986		005	

INT-CL (IPC): C25D 11/22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw:Des
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Terms	Documents
Gan-Z.IN.	34

Display Format:

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# Hit List

[Clear](#)[Generate Collection](#)[Print](#)[Fwd Refs](#)[Bkwd Refs](#)[Generate OACS](#)

Search Results - Record(s) 1 through 80 of 80 returned.

☐ 1. Document ID: US 20050026182 A1

Using default format because multiple data bases are involved.

L10: Entry 1 of 80

File: PGPB

Feb 3, 2005

PGPUB-DOCUMENT-NUMBER: 20050026182

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050026182 A1

TITLE: Human CDNAS and proteins and uses thereof

PUBLICATION-DATE: February 3, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/184, 435/320.1, 435/325, 435/69.1, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 2. Document ID: US 20050009049 A1

L10: Entry 2 of 80

File: PGPB

Jan 13, 2005

PGPUB-DOCUMENT-NUMBER: 20050009049

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050009049 A1

TITLE: Expanding the eukaryotic genetic code

PUBLICATION-DATE: January 13, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chin, Jason W.	Cambridge	CA	GB	
Cropp, T. Ashton	San Diego	CA	US	
Anderson, J. Christopher	San Francisco	CA	US	
Schultz, Peter G.	La Jolla		US	

US-CL-CURRENT: 435/6; 435/199, 435/320.1, 435/325, 435/69.1, 536/23.2

ABSTRACT:

This invention provides compositions and methods for producing translational components that expand the number of genetically encoded amino acids in eukaryotic cells. The components include orthogonal tRNAs, orthogonal aminoacyl-tRNA synthetases, orthogonal pairs of tRNAs/synthetases and unnatural amino acids. Proteins and methods of producing proteins with unnatural amino acids in eukaryotic cells are also provided.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 3. Document ID: US 20040248253 A1

L10: Entry 3 of 80

File: PGPB

Dec 9, 2004

PGPUB-DOCUMENT-NUMBER: 20040248253  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040248253 A1

TITLE: Methods and compositions for polypeptide engineering

PUBLICATION-DATE: December 9, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Patten, Phillip A.	Menlo Park	CA	US	
Stemmer, Willem P.C.	Los Gatos	CA	US	

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/91.2

ABSTRACT:

Methods are provided for the evolution of proteins of industrial and pharmaceutical interest, including methods for effecting recombination and selection. Compositions produced by these methods are also disclosed.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 4. Document ID: US 20040214277 A1

L10: Entry 4 of 80

File: PGPB

Oct 28, 2004

PGPUB-DOCUMENT-NUMBER: 20040214277  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040214277 A1

TITLE: Methods and compositions for polypeptide engineering

PUBLICATION-DATE: October 28, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Patten, Phillip A.	Menlo Park	CA	US	
Stemmer, Willem P.C.	Los Gatos	CA	US	

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/455, 435/91.2

ABSTRACT:

Methods are provided for the evolution of proteins of industrial and pharmaceutical interest, including methods for effecting recombination and selection. Compositions produced by these methods are also disclosed.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 5. Document ID: US 20040185114 A1

L10: Entry 5 of 80

File: PGPB

Sep 23, 2004

PGPUB-DOCUMENT-NUMBER: 20040185114  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040185114 A1

TITLE: Starch encapsulation

PUBLICATION-DATE: September 23, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Keeling, Peter	Ames	IA	US	
Guan, Hanping	Ames	IA	US	

US-CL-CURRENT: 424/490; 424/178.1, 424/94.61, 435/202, 435/320.1, 435/325, 435/69.7, 536/23.2

ABSTRACT:

Hybrid polypeptides are provided formed with encapsulating regions from genes that encode for anabolic proteins. More particularly, the present invention relates to recombinant nucleic acid molecules that code for genes which encapsulate an attached protein within a matrix; preferably, these genes encapsulate a desired ("payload") polypeptide within starch, and more specifically within the starch granule matrix. Expression vectors comprising these recombinant nucleic acid molecules, and hosts therefor, and more specifically the starch-bearing portions of such hosts, transformed with such vectors, are also provided. Preferably, grain containing a foreign protein encapsulated within the starch is provided, useful to produce mammalian, fish and avian food. The invention also encompasses methods of producing purified protein from starch and particularly from starch granules, and industrial uses of such protein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 6. Document ID: US 20040157289 A1

L10: Entry 6 of 80

File: PGPB

Aug 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040157289  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040157289 A1

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05

TITLE: Protein expression system

PUBLICATION-DATE: August 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Salerno, John C.	Averill Park	NY	US	
Hanna, Michael	Averill Park	NY	US	
Koretz, Jane F.	Slingerlands	NY	US	
Crone, Donna	Troy	NY	US	
Smith, Susan M. E.	Averill Park	NY	US	

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/6, 530/350, 536/23.5

ABSTRACT:

The present invention relates to a novel protein expression system having an oligonucleotide encoding a small heat shock protein (sHSP) operably linked to a promoter and an oligonucleotide encoding a protein of interest. In one embodiment the expressed sHSP is a truncated .alpha.-crystallin polypeptide derived from a wild-type .alpha.-crystallin protein, wherein the truncated sHSP lacks an N-terminal sequence present in the wild-type .alpha.-crystallin polypeptide. In an additional embodiment, a protein is coexpressed with a sHSP, thereby increasing the level of expression, enhancing folding and increasing the solubility of the protein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 7. Document ID: US 20040096877 A1

L10: Entry 7 of 80

File: PGPB

May 20, 2004

PGPUB-DOCUMENT-NUMBER: 20040096877

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040096877 A1

TITLE: Novel proteins and nucleic acids encoding same

PUBLICATION-DATE: May 20, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Taupier, Raymond J. JR.	East Haven	CT	US	
Padigaru, Muralidhara	Branford	CT	US	
Rastelli, Luca	Guilford	CT	US	
Spaderna, Steven Kurt	Berlin	CT	US	
Shimkets, Richard A.	West Haven	CT	US	
Zerhusen, Bryan D.	Branford	CT	US	
Spytek, Kimberly Ann	New Haven	CT	US	
Shenoy, Suresh G.	Branford	CT	US	
Li, Li	Cheshire	CT	US	
Gusev, Vladimir Y.	Madison	CT	US	
Grosse, William M.	Branford	CT	US	
Alsobrook, John P. II	Madison	CT	US	

Lepley, Denise M.	Branford	CT	US
Burgess, Catherine E.	Wethersfield	CT	US
Gerlach, Valerie L.	Branford	CT	US
Ellerman, Karen	Branford	CT	US
MacDougall, John R.	Hamden	CT	US
Stone, David J.	Guilford	CT	US
Smithson, Glennda	Guilford	CT	US

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/69.1, 530/350, 530/388.1, 536/23.5

ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWD	Draw Des.
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☐ 8. Document ID: US 20040058348 A1

L10: Entry 8 of 80

File: PGPB

Mar 25, 2004

PGPUB-DOCUMENT-NUMBER: 20040058348

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040058348 A1

TITLE: High level expression of heterologous proteins

PUBLICATION-DATE: March 25, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bogin, Oren	Moshav Ganei Yohanan		IL	
Yayon, Avner	Moshav Sitria		IL	
Peretz, Moshe	Moshav Beit Gamliel		IL	
Burstein, Yigal	Rehovot		IL	

US-CL-CURRENT: 435/6; 435/189, 435/252.3, 435/320.1, 435/69.1, 536/23.2

ABSTRACT:

The present invention discloses the isolation and use of a specific bacterial promoter region suitable for use in constructs for the high level production of heterologous proteins. This promoter is derived from the bacterial gene encoding for alcohol dehydrogenase, in particular the alcohol dehydrogenase genes isolated from the thermophilic bacterial strain T. Brockii and the mesophilic bacterial strain Clostridium beijerinckii. It is now disclosed that using either the intact promoter region or certain specific fragments consisting of at least a 88 bp DNA sequence in the upstream untranslated region of the bacterial alcohol dehydrogenase gene, operatively linked to the nucleic acid sequences encoding a heterologous protein, and

insertion into a DNA plasmid or any other suitable vector system, heterologous genes can be expressed in high levels in host cells. Heterologous proteins or peptides can be expressed constitutively at high levels. The proteins are obtained in their active folded form.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 9. Document ID: US 20040029278 A1

L10: Entry 9 of 80

File: PGPB

Feb 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040029278  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040029278 A1

TITLE: Eukaryotic layered vector initiation systems

PUBLICATION-DATE: February 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dubensky, Thomas W. JR.	Rancho Sante Fe	CA	US	
Polo, John M.	San Diego	CA	US	
Ibanez, Carlos E.	San Diego	CA	US	
Chang, Stephen M.W.	San Diego	CA	US	
Jolly, Douglas J.	Leucadia	CA	US	
Driver, David A.	San Diego	CA	US	
Belli, Barbara A.	San Diego	CA	US	

US-CL-CURRENT: 435/456; 435/320.1, 435/325

ABSTRACT:

The present invention provides compositions and methods for utilizing recombinant alphavirus vectors. Also disclosed are compositions and methods for making and utilizing eukaryotic layered vector initiation systems.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 10. Document ID: US 20040029222 A1

L10: Entry 10 of 80

File: PGPB

Feb 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040029222  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040029222 A1

TITLE: Proteins and nucleic acids encoding same

PUBLICATION-DATE: February 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Edinger, Shlomit R.	New Haven	CT	US	
MacDougall, John R.	Hamden	CT	US	
Millet, Isabelle	Milford	CT	US	
Ellerman, Karen	Branford	CT	US	
Stone, David J.	Guilford	CT	US	
Gerlach, Valerie	Branford	CT	US	
Grosse, William M.	Branford	CT	US	
Alsobrook, John P. II	Madison	CT	US	
Lepley, Denise M.	Branford	CT	US	
Rieger, Danier K.	Branford	CT	US	
Burgess, Catherine E.	Wethersfield	CT	US	
Casman, Stacie J.	North Haven	CT	US	
Spytek, Kimberly A.	New Haven	CT	US	
Boldog, Ference L.	North Haven	CT	US	
Li, Li	Branford	CT	US	
Padigar, Muralidhara	Branford	CT	US	
Mishra, Vishnu	Gainesville	FL	US	
Patturajan, Meera	Branford	CT	US	
Shenoy, Suresh G.	Branford	CT	US	
Rastelli, Luca	Guilford	CT	US	
Tchernev, Velizar T.	Branford	CT	US	
Vernet, Corine A.M.	Branford	CT	US	
Zerhusen, Bryan D.	Branford	CT	US	
Malyankar, Uriel M.	Branford	CT	US	
Guo, Xiaojia (Sasha)	Branford	CT	US	
Miller, Charles E.	Guilford	CT	US	
Gangolli, Esha A.	Madison	CT	US	
Grosse, Michael			US	

US-CL-CURRENT: 435/69.1; 435/183, 435/320.1, 435/325, 435/6, 435/7.23, 530/350, 530/388.1, 536/23.2

#### ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 11. Document ID: US 20040029116 A1

L10: Entry 11 of 80

File: PGPB

Feb 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040029116

PGPUB-FILING-TYPE: new

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05



TITLE: Proteins and nucleic acids encoding same

PUBLICATION-DATE: February 12, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Edinger, Shlomit R.	New Haven	CT	US	
MacDougall, John R.	Hamden	CT	US	
Millet, Isabelle	Milford	CT	US	
Ellerman, Karen	Branford	CT	US	
Stone, David J.	Guilford	CT	US	
Gerlach, Valerie	Branford	CT	US	
Grosse, William M.	Branford	CT	US	
Alsobrook, John P. II	Madison	CT	US	
Lepley, Denise M.	Branford	CT	US	
Rieger, Daniel K.	Branford	CT	US	
Burgess, Catherine E.	Wethersfield	CT	US	
Casman, Stacie J.	North Haven	CT	US	
Spytek, Kimberly A.	New Haven	CT	US	
Boldog, Ferenc L.	North Haven	CT	US	
Li, Li	Branford	CT	US	
Padigaru, Muralidhara	Branford	CT	US	
Mishra, Vishnu	Gainesville	FL	US	
Patturajan, Meera	Branford	CT	US	
Shenoy, Suresh G.	Branford	CT	US	
Rastelli, Luca	Guilford	CT	US	
Tchernev, Velizar T.	Branford	CT	US	
Vernet, Corine A.M.	Branford	CT	US	
Zerhusen, Bryan D.	Branford	CT	US	
Malyankar, Uriel M.	Branford	CT	US	
Guo, Xiaojia	Branford	CT	US	
Miller, Charles E.	Guilford	CT	US	
Gangolli, Esha A.	Madison	CT	US	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 536/23.2

## ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw. Des.
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PGPUB-DOCUMENT-NUMBER: 20040009550  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040009550 A1

TITLE: Export and modification of (poly)peptides in the lantibiotic way

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Moll, Gert Nikolaas	Groningen		NL	
Leenhouts, Cornelis Johannes	Haren		NL	

US-CL-CURRENT: 435/69.1; 435/325, 530/322, 530/324

ABSTRACT:

The invention includes a method for harvesting a polypeptide produced by a host cell, wherein the polypeptide has not undergone intra-cellular post-translational modification, such as dehydration of a serine or a threonine, and/or thioether bridge formation. The invention also includes a method for producing thioether containing peptides and dehydroalanine/dehydrobutyrine-containing peptides, wherein extracellularly thioether rings may be formed.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 13. Document ID: US 20040009474 A1

L10: Entry 13 of 80

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040009474  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040009474 A1

TITLE: Novel human polynucleotides and polypeptides encoded thereby

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Leach, Martin D.	Madison	CT	US	
Shimkets, Richard A.	Guilford	CT	US	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 536/23.2

ABSTRACT:

The present invention provides ORFX, a novel isolated polypeptide, as well as a polynucleotide encoding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX polypeptide, polynucleotide or antibody. The invention additionally provides methods in which the ORFX polypeptide, polynucleotide and antibody are used in detection and treatment of a

broad range of pathological states, as well as to others uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 14. Document ID: US 20040005560 A1

L10: Entry 14 of 80

File: PGPB

Jan 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040005560

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040005560 A1

TITLE: Novel full-length cDNA

PUBLICATION-DATE: January 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Isogai, Takao	Ibaraki		JP	
Sugiyama, Tomoyasu	Tokyo		JP	
Otsuki, Tetsuji	Chiba		JP	
Wakamatsu, Ai	Chiba		JP	
Sato, Hiroyuki	Osaka		JP	
Ishii, Shizuko	Chiba		JP	
Yamamoto, Jun-Ichi	Chiba		JP	
Isono, Yuuko	Chiba		JP	
Hio, Yuri	Chiba		JP	
Otsuka, Kaoru	Saitama		JP	
Nagai, Keiichi	Tokyo		JP	
Irie, Ryotaro	Chiba		JP	
Tamechika, Ichiro	Osaka		JP	
Seki, Naohiko	Chiba		JP	
Yoshikawa, Tsutomu	Chiba		JP	
Otsuka, Motoyuki	Tokyo		JP	
Nagahari, Kenji	Tokyo		JP	
Masuho, Yasuhiko	Tokyo		JP	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 530/388.1, 536/23.5

ABSTRACT:

Novel full-length cDNAs are provided.

2443 cDNA derived from human have been isolated. The full-length nucleotide sequences of the cDNA and amino acid sequences encoded by the nucleotide sequences have been determined. Because the cDNA of the present invention are full-length and contain the translation start site, they provide information useful for analyzing the functions of the polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 15. Document ID: US 20040002114 A1

L10: Entry 15 of 80

File: PGPB

Jan 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040002114  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040002114 A1

TITLE: Nucleic acids encoding a G-protein coupled receptor involved in islet cell signaling

PUBLICATION-DATE: January 1, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gregoire, Francine M.	Lafayette	CA	US	
Johnson, Jeffrey D.	Moraga	CA	US	
Blume, John E.	Danville	CA	US	

US-CL-CURRENT: 435/7.1; 435/320.1, 435/325, 435/69.1, 514/12, 530/350, 536/23.5

ABSTRACT:

The invention provides isolated nucleic acid and amino acid sequences of human and murine islet cell G-protein coupled receptors, antibodies to such receptors, methods of detecting such nucleic acids and receptors, methods of screening for modulators of islet cell G-protein coupled receptors and methods of treating mammals with modulators of islet cell G-protein coupled receptor activity.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 16. Document ID: US 20030232054 A1

L10: Entry 16 of 80

File: PGPB

Dec 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030232054  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030232054 A1

TITLE: Novel nucleic acids and polypeptides

PUBLICATION-DATE: December 18, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Tang, Y. Tom	San Jose	CA	US	
Liu, Chenghua	San Jose	CA	US	
Asundi, Vinod	Foster City	CA	US	
Chen, Rui-Hong	Foster City	CA	US	
Qian, Xiaohong B.	San Jose	CA	US	
Wang, Zhi Wei	Athens	CA	US	
Wehrman, Tom	Stanford	CA	US	

Zhang, Jie	Campbell	CA	US
Zhou, Ping	Cupertino	CA	US
Cao, Yi-Cheng	Sunnyvale	CA	US
Drmanac, Radoje T.	Palo Alto	CA	US

US-CL-CURRENT: 424/185.1; 435/320.1, 435/325, 435/6, 435/69.1, 530/350, 536/23.5

ABSTRACT:

The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 17. Document ID: US 20030232035 A1

L10: Entry 17 of 80

File: PGPB

Dec 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030232035

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030232035 A1

TITLE: Eukaryotic layered vector initiation systems

PUBLICATION-DATE: December 18, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dubensky, Thomas W. JR.	Rancho Sante Fe	CA	US	
Polo, John M.	San Diego	CA	US	
Ibanez, Carlos E.	San Diego	CA	US	
Chang, Stephen M.W.	San Diego	CA	US	
Jolly, Douglas J.	Leucadia	CA	US	
Driver, David A.	San Diego	CA	US	
Belli, Barbara A.	San Diego	CA	US	

US-CL-CURRENT: 424/93.2; 435/320.1, 435/325, 435/456, 435/6, 800/8

ABSTRACT:

The present invention provides compositions and methods for utilizing recombinant alphavirus vectors. Also disclosed are compositions and methods for making and utilizing eukaryotic layered vector initiation systems.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 18. Document ID: US 20030219724 A1

L10: Entry 18 of 80

File: PGPB

Nov 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030219724

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05

PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030219724 A1

TITLE: Peptides which enhance transport across tissues and methods of identifying and using the same

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
O'Mahony, Daniel Joseph	Dublin		IE	

US-CL-CURRENT: 435/5; 435/325, 435/7.1

ABSTRACT:

A method of identifying a peptide which permits or facilitates the transport of an active agent through a human or animal tissue. A predetermined amount of phage from a random phage library or preselected phage library is plated unto or brought into contact with a first side, preferably the apical side, of a tissue sample or polarized tissue cell culture. At a predetermined time, the phage which is transported to a second side of the tissue opposite the first side, preferably the basolateral side, is harvested to select transported phage. This modified phage is amplified in a host. This cycle of events is repeated (using the transported phage produced in the most recent cycle) a predetermined number of times to obtain a selected phage library containing phage which can be transported from the first side to the second side. Lastly, the identity of at least one peptide coded by phage in the selected phage library is determined to identify a peptide which permits or facilitates the transport of an active agent through a human or animal tissue.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 19. Document ID: US 20030170871 A1

L10: Entry 19 of 80

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170871  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030170871 A1

TITLE: Alphavirus-based vectors for persistent infection

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dubensky, Thomas W. JR.	Piedmont	CA	US	
Polo, John M.	Hayward	CA	US	
Perri, Silvia	Castro Valley	CA	US	
Belli, Barbara	San Diego	CA	US	

US-CL-CURRENT: 435/235.1; 424/93.21, 435/325, 435/456, 435/69.1, 536/23.72

ABSTRACT:

Isolated nucleic acid molecules are disclosed, comprising an alphavirus nonstructural protein 2 gene which, when operably incorporated into an alphavirus replicon particle, eukaryotic layered vector initiation system, alphavirus vector construct or RNA vector replicon, provides a noncytopathic phenotype or confers the ability to establish persistent replication. Also disclosed are RNA vector replicons, alphavirus vector constructs, alphavirus replicon particles and eukaryotic layered vector initiation systems which contain the above-identified nucleic acid molecules, as well as methods of using such replicons, constructs, particles and eukaryotic layered vector initiation systems for expression of recombinant proteins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 20. Document ID: US 20030170628 A1

L10: Entry 20 of 80

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170628

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030170628 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/69.1, 435/7.1, 530/350, 530/388.1, 536/23.5

ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 21. Document ID: US 20030162186 A1

L10: Entry 21 of 80

File: PGPB

Aug 28, 2003

PGPUB-DOCUMENT-NUMBER: 20030162186

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030162186 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: August 28, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 536/23.2

## ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 22. Document ID: US 20030157485 A1

L10: Entry 22 of 80

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157485

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157485 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: August 21, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/226, 435/320.1, 435/325, 435/69.1, 435/7.2, 530/388.26, 536/23.2, 800/8

## ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 23. Document ID: US 20030152562 A1

L10: Entry 23 of 80

File: PGPB

Aug 14, 2003



PGPUB-DOCUMENT-NUMBER: 20030152562  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030152562 A1

TITLE: Vitro micro-organs, and uses related thereto

PUBLICATION-DATE: August 14, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mitrani, Eduardo N.	Jerusalem		IL	

US-CL-CURRENT: 424/93.21; 435/325, 435/366, 435/69.1

ABSTRACT:

Micro-organ cultures which include isolated populations of cells having specific characteristics are described. Salient features of the subject micro-organ cultures include the ability to be maintained in culture for relatively long periods of time, as well as the preservation of an organ microarchitecture which facilitates, for example, cell-cell and cell-matrix interactions analogous to those occurring in the source organ. The micro-organ cultures of the invention can be used in methods for delivering gene products to recipient subjects, for identifying cell proliferative and cell differentiating agents, and identification and isolation of progenitor and stem cells. In addition, the micro-organ cultures of the present invention can be used in methods for identifying inhibitors of cell proliferation, cell differentiation and viral infectivity. In other embodiments, the micro-organ cultures can be used for transplantation.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 24. Document ID: US 20030148441 A1

L10: Entry 24 of 80

File: PGPB

Aug 7, 2003

PGPUB-DOCUMENT-NUMBER: 20030148441  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030148441 A1

TITLE: Method for preparing polypeptide variants

PUBLICATION-DATE: August 7, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Okkels, Jens Sigurd	Tokyo		JP	

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/455

ABSTRACT:

The present invention relates to a method for preparing positive polypeptide variants by shuffling different nucleotide sequences of homologous DNA sequences by in vivo recombination comprising the steps of (a) forming at least one circular plasmid comprising a DNA sequence encoding a polypeptide, (b) opening said circular plasmid (s) within the DNA sequence(s) encoding the polypeptide(s), (c) preparing at least

one DNA fragment comprising a DNA sequence homologous to at least a part of the polypeptide coding region on at least one of the circular plasmid(s), (d) introducing at least one of said opened plasmid(s), together with at least one of said homologous DNA fragment(s) covering full-length DNA sequences encoding said polypeptide(s) or parts thereof, into a recombination host cell, (e) cultivating said recombination host cell, and (f) screening for positive polypeptide variants.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 25. Document ID: US 20030124664 A1

L10: Entry 25 of 80

File: PGPB

Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030124664

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030124664 A1

TITLE: Aminopeptidase

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Joly, John C.	San Mateo	CA	US	

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1

ABSTRACT:

A gram-negative bacterial cell is described that is deficient in a chromosomal gene present in a wild-type such cell which gene shares at least 80% sequence identity with the native sequence of the yfck gene and encodes an aminopeptidase. Alternatively, a gram-negative bacterial cell is deficient in a chromosomal gene present in a wild-type such cell which gene encodes an aminopeptidase that shares at least 80% sequence identity with the native sequence of aminopeptidase b2324. Either of these types of cells, when comprising a nucleic acid encoding a heterologous polypeptide, produces an N-terminal unclipped polypeptide when it is cultured and the polypeptide recovered, with virtually no N-terminal clipped polypeptide produced as an impurity. Conversely, a method is provided for cleaving an N-terminal amino acid from a polypeptide comprising contacting the polypeptide with an aminopeptidase sharing at least 80% sequence identity with the native sequence of aminopeptidase b2324.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 26. Document ID: US 20030096354 A1

L10: Entry 26 of 80

File: PGPB

May 22, 2003

PGPUB-DOCUMENT-NUMBER: 20030096354

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030096354 A1

TITLE: Peyer's patch and/or M-cell targeting ligands

PUBLICATION-DATE: May 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
O'Mahony, Daniel	Blackrock		IE	
Lambkin, Imelda	Sutton		IE	
Higgins, Lisa	Donabate		IE	

US-CL-CURRENT: 435/69.1; 435/183, 435/320.1, 435/325, 530/324, 536/23.5

ABSTRACT:

Purified synthetic polypeptide ligands for targeting pharmaceutical agents and carriers comprising such agents to intestinal epithelial tissue, especially Peyer's patch and/or M-Cell tissue. Also methods of using the ligands.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 27. Document ID: US 20030096247 A1

L10: Entry 27 of 80

File: PGPB

May 22, 2003

PGPUB-DOCUMENT-NUMBER: 20030096247

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030096247 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: May 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 536/23.2, 800/8

ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 28. Document ID: US 20030092011 A1

L10: Entry 28 of 80

File: PGPB

May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030092011  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030092011 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 435/7.9, 536/23.2, 800/3

ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 29. Document ID: US 20030087785 A1

L10: Entry 29 of 80

File: PGPB

May 8, 2003

PGPUB-DOCUMENT-NUMBER: 20030087785  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030087785 A1

TITLE: Modified polypeptides

PUBLICATION-DATE: May 8, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Olsen, Arne Agerlin	Virum		DK	
Osten, Claus von der	Lyngby		DK	
Andersen, Kim Vilbour	Copenhagen		DK	
Ernst, Steffen	Kobenhavn		DK	
Roggen, Erwin Ludo	Lyngby		DK	

US-CL-CURRENT: 510/305; 435/200, 435/219, 435/252.3, 435/320.1, 435/69.1, 510/226, 536/23.2

ABSTRACT:

The present invention relates to polypeptides with reduced immune response including reduced allergenicity having one or more amino acid residues being substituted with other amino acid residues and/or having coupled one or more polymeric molecules in

the vicinity of the polypeptides metal binding site, a method for preparing modified polypeptides of the invention, the use of the polypeptide for reducing the immunogenicity and allergenicity and compositions comprising the polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw. Des.
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☐ 30. Document ID: US 20030082575 A1

L10: Entry 30 of 80

File: PGPB

May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030082575  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030082575 A1

TITLE: In vivo incorporation of unnatural amino acids

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Schultz, Peter	La Jolla	CA	US	
Wang, Lei	San Diego	CA	US	
Anderson, John Christopher	San Diego	CA	US	
Chin, Jason William	San Diego	CA	US	
Liu, David R.	Lexington	MA	US	
Magliery, Thomas J.	North Haven	CT	US	
Meggers, Eric L.	Philadelphia	PA	US	
Mehl, Ryan A.	San Diego	CA	US	
Pastrnak, Miro	San Diego	CA	US	
Santoro, Stephen William	San Diego	CA	US	
Zhang, Zhiwen	San Diego	CA	US	

US-CL-CURRENT: 435/6; 435/252.3, 435/254.2, 435/325, 435/348, 435/419, 435/69.1, 435/91.2

ABSTRACT:

The invention provides methods and compositions for in vivo incorporation of unnatural amino acids. Also provided are compositions including proteins with unnatural amino acids.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw. Des.
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☐ 31. Document ID: US 20030064369 A1

L10: Entry 31 of 80

File: PGPB

Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030064369  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030064369 A1

TITLE: Novel proteins and nucleic acids encoding same

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Taupier, Raymond J. JR.	East Haven	CT	US	
Padigar, Muralidhara	Branford	CT	US	
Rastelli, Luca	Guilford	CT	US	
Spaderna, Steven Kurt	Berlin	CT	US	
Shimkets, Richard A.	West Haven	CT	US	
Zerhusen, Bryan D.	Branford	CT	US	
Spytek, Kimberly Ann	New Haven	CT	US	
Shenoy, Suresh G.	Branford	CT	US	
Li, Li	Cheshire	CT	US	
Gusev, Vladimir Y.	Madison	CT	US	
Grosse, William M.	Branford	CT	US	
Alsobrook, John P. II	Madison	CT	US	
Lepley, Denise M.	Branford	CT	US	
Burgess, Catherine E.	Wethersfield	CT	US	
Gerlach, Valerie L.	Branford	CT	US	
Ellerman, Karen	Branford	CT	US	
MacDougall, John R.	Hamden	CT	US	
Stone, David J.	Guilford	CT	US	
Smithson, Glenna	Guilford	CT	US	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 536/23.2

ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWIC	Draw Des
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☐ 32. Document ID: US 20030027248 A1

L10: Entry 32 of 80

File: PGPB

Feb 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030027248

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030027248 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: February 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
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Bejanin, Stephane  
Tanaka, Hiroaki

Paris  
Antony

FR  
FR

US-CL-CURRENT: 435/69.1; 435/183, 435/320.1, 435/325, 435/6, 530/350, 536/23.2

ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Des
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☐ 33. Document ID: US 20030027161 A1

L10: Entry 33 of 80

File: PGPB

Feb 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030027161  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030027161 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: February 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 536/23.2, 800/8

ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Des
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☐ 34. Document ID: US 20020164700 A1

L10: Entry 34 of 80

File: PGPB

Nov 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020164700  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020164700 A1

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05

TITLE: Metabolic rate shifts in fermentations expressing recombinant proteins

PUBLICATION-DATE: November 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Andersen, Dana	Redwood	CA	US	
Joly, John	San Mateo	CA	US	
Snedecor, Bradley R.	Portola Valley	CA	US	

US-CL-CURRENT: 435/69.1; 435/325

ABSTRACT:

The invention provides a method for increasing product yield of a polypeptide of interest produced by recombinant host cells, where expression of the polypeptide by the recombinant host cells is regulated by an inducible system. More specifically, the method involves culturing the recombinant host cells under conditions of high metabolic and growth rate and then reducing the metabolic rate of the recombinant host cells at the time of induction of polypeptide expression. In particular, the invention provides a method of increasing product yield of an antibody, growth factor, or protease produced by a recombinant E. coli host cell regulated by an inducible system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 35. Document ID: US 6780613 B1

L10: Entry 35 of 80

File: USPT

Aug 24, 2004

US-PAT-NO: 6780613

DOCUMENT-IDENTIFIER: US 6780613 B1

TITLE: Growth hormone variants

DATE-ISSUED: August 24, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wells; James A.	Burlingame	CA		
Cunningham; Brian C.	Piedmont	CA		

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 530/399, 536/23.51

ABSTRACT:

The invention provides methods for the systematic analysis of the structure and function of polypeptides by identifying active domains which influence the activity of the polypeptide with a target substance. Such active domains are determined by substituting selected amino acid segments of the polypeptide with an analogous polypeptide segment from an analog to the polypeptide. The analog has a different activity with the target substance as compared to the parent polypeptide. The activities of the segment-substituted polypeptides are compared to the same activity for the parent polypeptide for the target. A comparison of such activities provides an indication of the location of the active domain in the parent polypeptide. The



invention also provides methods for identifying the active amino acid residues within the active domain of the parent polypeptide. The method comprises substituting a scanning amino acid for one of the amino acid residues within the active domain of the parent polypeptide and assaying the residue-substituted polypeptide so formed with a target substance. The invention further provides polypeptide variants comprising segment-substituted and residue-substituted growth hormones, prolactins and placental lactogens.

51 Claims, 57 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 55

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 36. Document ID: US 6730822 B1

L10: Entry 36 of 80

File: USPT

May 4, 2004

US-PAT-NO: 6730822  
DOCUMENT-IDENTIFIER: US 6730822 B1

TITLE: Vectors in avian transgenesis

DATE-ISSUED: May 4, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ivarie; Robert D.	Watkinsville	GA		
Harvey; Alex J.	Athens	GA		
Morris; Julie A.	Watkinsville	GA		
Liu; Guodong	Mississauga			CA
Rapp; Jeffrey C.	Athens	GA		

US-CL-CURRENT: 800/19; 435/320.1, 435/325, 435/455, 800/21, 800/23, 800/4, 800/8

ABSTRACT:

This invention provides vectors and methods for the stable introduction of exogenous nucleic acid sequences into the genome of a bird and for expressing said exogenous sequences to alter the phenotype of the bird or to produce desired proteins. In particular, transgenic chickens are produced which express exogenous sequences in their oviducts. Eggs which contain exogenous proteins are also produced.

7 Claims, 18 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 37. Document ID: US 6696260 B1

L10: Entry 37 of 80

File: USPT

Feb 24, 2004.

US-PAT-NO: 6696260  
DOCUMENT-IDENTIFIER: US 6696260 B1

TITLE: Methods to identify growth differentiation factor (GDF) binding proteins

DATE-ISSUED: February 24, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lee; Se-Jin	Baltimore	MD		
McPherron; Alexandra	Baltimore	MD		

US-CL-CURRENT: 435/7.21; 435/320.1, 435/325, 435/69.1, 435/7.1, 530/350

ABSTRACT:

The present invention provides receptors for the growth differentiation factor (GDF) family of growth factors and methods of identifying such receptors. Also included are methods of identifying antibodies which bind to the receptors, peptide fragments of the receptor which inhibit GDF binding, GDF receptor-binding agents capable of blocking GDF binding to the receptor. The receptors of the invention allow the identification of antagonists or agonists useful for agricultural and human therapeutic purposes.

26 Claims, 28 Drawing figures  
Exemplary Claim Number: 1,14  
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Drawings	Claims	KNOW	Draw. Des.
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☐ 38. Document ID: US 6686179 B2

L10: Entry 38 of 80

File: USPT

Feb 3, 2004

US-PAT-NO: 6686179

DOCUMENT-IDENTIFIER: US 6686179 B2

**\*\* See image for Certificate of Correction \*\***

TITLE: Fusion polypeptides of human serum albumin and a therapeutically active polypeptide

DATE-ISSUED: February 3, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fleer; Reinhard	Bures-sur-Yvette			FR
Fournier; Alain	Chatenay-Malabry			FR
Guitton; Jean-Dominique	Paris			FR
Jung; Gerard	Montlhery			FR
Yeh; Patrice	Paris			FR

US-CL-CURRENT: 435/69.7; 435/252.3, 435/320.1, 435/325, 530/350, 530/362, 536/23.4

ABSTRACT:

Biologically active polypeptides comprising a therapeutically active polypeptide fused to human serum albumin or a variant thereof, methods for the preparation thereof, nucleotide sequences encoding such fusion polypeptides, expression cassettes comprising such nucleotide sequences, self-replicating plasmids containing such expression cassettes, and pharmaceutical compositions containing said fusion polypeptides.

25 Claims, 18 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 25

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MM	Draw Des
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☐ 39. Document ID: US 6623950 B1

L10: Entry 39 of 80

File: USPT

Sep 23, 2003

US-PAT-NO: 6623950  
DOCUMENT-IDENTIFIER: US 6623950 B1

TITLE: Modified enzymes having polymer conjugates

DATE-ISSUED: September 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
von der Osten; Claus	Lyngby			DK
Olsen; Arne Agerlin	Virum			DK
Roggen; Erwin Ludo	Lyngby			DK

US-CL-CURRENT: 435/220; 435/221, 435/252.3, 435/320.1, 435/471, 435/69.1, 510/320, 536/23.2

ABSTRACT:

The present invention relates to polypeptide-polymer conjugates having added and/or removed one or more attachment groups for coupling polymeric molecules on the surface of the polypeptide structure, a method for preparing polypeptide-polymer conjugates of the invention, the use of said conjugates for reducing the immunogenicity and allergenicity and compositions comprising said conjugate.

11 Claims, 1 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MM	Draw Des
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☐ 40. Document ID: US 6617130 B1

L10: Entry 40 of 80

File: USPT

Sep 9, 2003

US-PAT-NO: 6617130  
DOCUMENT-IDENTIFIER: US 6617130 B1

TITLE: DNA construct for regulating the expression of a polypeptide coding sequence in a transformed bacterial host cell

DATE-ISSUED: September 9, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogosian; Gregg	Clarkson Valley	MO		
O'Neil; Julia P.	St. Louis	MO		
Terlesky; Katherine C.	Charlottesville	VA		

US-CL-CURRENT: 435/69.1; 435/252.3, 435/252.33, 435/320.1, 536/23.1, 536/24.1, 536/24.2

ABSTRACT:

A heterologous polypeptide is expressed under the control of a DNA construct containing a promoter region derived from a cyanophage or cyanobacteria promoter. In one embodiment, such a promoter region is operably linked to an operator region derived from an operator native to the host cell. In another embodiment, the operator region is positioned upstream of the promoter region.

26 Claims, 15 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Examination	Claims	Draw Des
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☐ 41. Document ID: US 6465239 B1

L10: Entry 41 of 80

File: USPT

Oct 15, 2002

US-PAT-NO: 6465239

DOCUMENT-IDENTIFIER: US 6465239 B1

TITLE: Growth differentiation factor-8 nucleic acid and polypeptides from aquatic species and non-human transgenic aquatic species

DATE-ISSUED: October 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lee; Se-Jin	Baltimore	MD		
McPherron; Alexandra C.	Baltimore	MD		

US-CL-CURRENT: 435/252.3; 435/254.11, 435/320.1, 435/69.1, 435/69.4, 536/23.4

ABSTRACT:

A transgenic non-human aquatic organisms, such as piscine, crustacea, mollusks, and the like, having a transgene which results in disrupting the production of and/or activity of growth differentiation factor-8 (GDF-8) chromosomally integrated into the germ cells of the animal is disclosed. Also disclosed are methods for making such organisms and nucleic acid sequences encoding GDF-8 polypeptides from such aquatic organisms.

14 Claims, 32 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 29

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	NUMC	Draw. Des.
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☐ 42. Document ID: US 6455253 B1

L10: Entry 42 of 80

File: USPT

Sep 24, 2002

US-PAT-NO: 6455253  
DOCUMENT-IDENTIFIER: US 6455253 B1

TITLE: Methods and compositions for polypeptide engineering

DATE-ISSUED: September 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Patten; Phillip A.	Mountain View	CA		
Stemmer; Willem P. C.	Los Gatos	CA		

US-CL-CURRENT: 435/6; 435/252.3, 435/252.33, 435/320.1, 435/463, 435/471, 435/69.1,  
435/91.2, 530/300, 530/350, 536/23.1

ABSTRACT:

Methods are provided for the evolution of proteins of industrial and pharmaceutical interest, including methods for effecting recombination and selection. Compositions produced by these methods are also disclosed.

37 Claims, 8 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	NUMC	Draw. Des.
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☐ 43. Document ID: US 6395959 B1

L10: Entry 43 of 80

File: USPT

May 28, 2002

US-PAT-NO: 6395959  
DOCUMENT-IDENTIFIER: US 6395959 B1

TITLE: Nucleotide sequence encoding the enzyme I SceI and the use thereof

DATE-ISSUED: May 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dujon; Bernard	Gif sur Yvette			FR
Chouluka; Andre	Paris			FR

Perrin; Arnaud  
Nicolas; Jean-Francois

Paris  
Noisy le Roi

FR  
FR

US-CL-CURRENT: 800/18; 435/320.1, 435/325, 435/455, 800/25

ABSTRACT:

An isolated DNA encoding the enzyme I-SceI is provided. The DNA sequence can be incorporated in cloning and expression vectors, transformed cell lines and transgenic animals. The vectors are useful in gene mapping and site-directed insertion of genes.

7 Claims, 63 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 46

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw. Des.
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☐ 44. Document ID: US 6391632 B1

L10: Entry 44 of 80

File: USPT

May 21, 2002

US-PAT-NO: 6391632  
DOCUMENT-IDENTIFIER: US 6391632 B1

TITLE: Recombinant alphavirus-based vectors with reduced inhibition of cellular macromolecular synthesis

DATE-ISSUED: May 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dubensky, Jr.; Thomas W.	Del Mon	CA		
Polo; John M.	Encinitas	CA		
Belli; Barbara A.	San Diego	CA		
Schlesinger; Sondra	St. Louis	MO		
Dryga; Sergey A.	Fort Collins	CO		
Frolov; Ilya	St. Louis	MO		

US-CL-CURRENT: 435/325; 435/457, 435/69.1, 536/23.72

ABSTRACT:

Isolated nucleic acid molecules are disclosed, comprising an alphavirus nonstructural protein gene which, when operably incorporated into a recombinant alphavirus particle, eukaryotic layered vector initiation system, or RNA vector replicon, has a reduced level of vector-specific RNA synthesis, as compared to wild-type, and the same or greater level of proteins encoded by RNA transcribed from the viral junction region promoter, as is compared to a wild-type recombinant alphavirus particle. Also disclosed are RNA vector replicons, alphavirus vector constructs, and eukaryotic layered vector initiation systems which contain the above-identified nucleic acid molecules.

28 Claims, 68 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 63

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Figures	Claims	KWIC	Draw Des.
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☐ 45. Document ID: US 6303344 B1

L10: Entry 45 of 80

File: USPT

Oct 16, 2001

US-PAT-NO: 6303344

DOCUMENT-IDENTIFIER: US 6303344 B1

TITLE: Methods and compositions for polypeptide engineering

DATE-ISSUED: October 16, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Patten; Phillip A.	Mountain View	CA		
Stemmer; Willem P.C.	Los Gatos	CA		

US-CL-CURRENT: 435/91.1; 435/252.3, 435/325, 435/6, 435/91.5, 536/23.1

ABSTRACT:

Methods are provided for the evolution of proteins of industrial and pharmaceutical interest, including methods for effecting recombination and selection. Compositions produced by these methods are also disclosed.

12 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Figures	Claims	KWIC	Draw Des.
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☐ 46. Document ID: US 6284488 B1

L10: Entry 46 of 80

File: USPT

Sep 4, 2001

US-PAT-NO: 6284488

DOCUMENT-IDENTIFIER: US 6284488 B1

TITLE: Protein expression system

DATE-ISSUED: September 4, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Weir; Andrew Neil Charles	Maidenhead			GB
Mountain; Andrew	Wokingham			GB

US-CL-CURRENT: 435/69.1; 435/252.3, 435/252.33, 435/69.6, 435/69.7, 435/70.1, 435/71.2, 514/12, 530/387.1, 530/387.3, 536/23.1, 536/23.53

ABSTRACT:

A method for expressing recombinant molecules in bacterial hosts in a defined medium in the absence of antibiotic selection is disclosed. The method uses an expression vector comprising a regulatable promoter by which the production of foreign proteins may be controlled during the growth phase of the culture, and origin of replication maintaining medium vector copy number and a transcriptional promoter.

11 Claims, 11 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 47. Document ID: US 6245901 B1

L10: Entry 47 of 80

File: USPT

Jun 12, 2001

US-PAT-NO: 6245901  
DOCUMENT-IDENTIFIER: US 6245901 B1

TITLE: Modified polypeptide

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
von der Osten; Claus	Lyngby			DK
Olsen; Arne Agerlin	Virum			DK
Roggen; Erwin Ludo	Lyngby			DK

US-CL-CURRENT: 530/402; 435/192, 435/221, 435/252.3, 435/320.1, 435/471, 435/69.1,  
536/23.2

ABSTRACT:

The present invention relates to polypeptide-polymer conjugates having added and/or removed one or more attachment groups for coupling polymeric molecules on the surface of the polypeptide structure, a method for preparing polypeptide-polymer conjugates of the invention, the use of said conjugated for reducing the immunogenicity and allergenicity and compositions comprising said conjugate.

23 Claims, 1 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 48. Document ID: US 6235500 B1

L10: Entry 48 of 80

File: USPT

May 22, 2001

US-PAT-NO: 6235500  
DOCUMENT-IDENTIFIER: US 6235500 B1

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05



TITLE: Oxygen-binding heme proteins incorporating circularly-permuted globins

DATE-ISSUED: May 22, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sligar; Stephen G.	Urbana	IL		
Sanders; Kevin	Champaign	IL		

US-CL-CURRENT: 435/69.6; 435/252.3, 435/320.1, 435/325, 530/385, 536/23.5

ABSTRACT:

Described are preferred oxygen-binding heme proteins which include at least one hemoglobin molecule incorporating at least one circularly permuted globin, especially an alpha globin. More preferred heme proteins of the invention include high molecular weight hemoglobin multimers. Also described are polynucleotides encoding proteins of the invention, and vectors and host cells including the same.

28 Claims, 18 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Des
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☐ 49. Document ID: US 6218182 B1

L10: Entry 49 of 80

File: USPT

Apr 17, 2001

US-PAT-NO: 6218182

DOCUMENT-IDENTIFIER: US 6218182 B1

TITLE: Method for culturing three-dimensional tissue in diffusion gradient bioreactor and use thereof

DATE-ISSUED: April 17, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Naughton; Brian A.	El Cajon	CA		
Halberstadt; Craig R.	La Jolla	CA		
Sibanda; Benson	Oceanside	CA		

US-CL-CURRENT: 435/395; 435/1.1, 435/1.2, 435/2, 435/289.1, 435/297.1, 435/297.2, 435/298.1, 435/299.1, 435/325, 435/370, 435/373, 435/375, 435/401

ABSTRACT:

A tissue engineering bioreactor is disclosed for growing three-dimensional tissue. Cells are seeded onto a mesh and provided with two media flows, each contacting a different side of the cells. The media flows contain different concentrations of nutrients, allowing nutrients to be delivered to the cells by diffusion gradient. The bioreactor can be used to grow liver tissue, and designed as an extracorporeal liver assist device in which blood or plasma is exposed to the three-dimensional liver tissue. The blood or plasma from a patient directed to flow against the liver tissue.

The liver tissue is further exposed on its opposite side to media providing nutrients and gases. The device provides porous boundaries between the blood or plasma, tissue, and media; allowing nutrient and protein delivery by diffusion gradient to dialyze a patient's blood.

12 Claims, 13 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 50. Document ID: US 6143523 A

L10: Entry 50 of 80

File: USPT

Nov 7, 2000

US-PAT-NO: 6143523  
DOCUMENT-IDENTIFIER: US 6143523 A

TITLE: Human growth hormone variants

DATE-ISSUED: November 7, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cunningham; Brian C.	Piedmont	CA		
Lowman; Henry	Hercules	CA		
Wells; James A.	Burlingame	CA		

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 435/70.1, 530/399, 530/402,  
930/120

ABSTRACT:

Human growth hormone variants and their nucleic acids are disclosed wherein the amino acid residues at positions 10, 14, 18, 21, 167, 171, 174, 176 and 179 have been replaced with other amino acids. Also claimed are vectors and host cells comprising these human growth hormone variants as well as processes for their preparation.

6 Claims, 17 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 51. Document ID: US 6136563 A

L10: Entry 51 of 80

File: USPT

Oct 24, 2000

US-PAT-NO: 6136563  
DOCUMENT-IDENTIFIER: US 6136563 A

TITLE: Human growth hormone variants comprising amino acid substitutions

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cunningham; Brian C.	San Bruno	CA		
Wells; James A.	Burlingame	CA		
Clark; Ross G.	Pacifica	CA		
Olson; Kenneth	Burlingame	CA		
Fuh; Germaine G.	Pacifica	CA		

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 530/399, 530/402, 536/23.51, 930/120

ABSTRACT:

Human growth hormone variants are disclosed having enhanced affinity for the growth hormone receptor. Also disclosed are human growth hormone variants conjugated to one or more chemical groups, such as poly(ethylene glycol), which is believed to prolong the in vivo half-life of the variants.

17 Claims, 20 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 17

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Drawings	Claims	EMC	Draw Des
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☐ 52. Document ID: US 6136562 A

L10: Entry 52 of 80

File: USPT

Oct 24, 2000

US-PAT-NO: 6136562

DOCUMENT-IDENTIFIER: US 6136562 A

TITLE: Bovine placental lactogen

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Byatt; John C.	Grover	MO		
Hauser; Scott D.	Webster Groves	MO		
Krivi; Gwen G.	St. Louis	MO		
Siegel; Ned R.	Belleville	IL		
Smith; Christine E.	St. Louis	MO		
Stafford; Jeannine M.	Ballwin	MO		

US-CL-CURRENT: 435/69.4; 435/252.3, 435/254.2, 435/320.1, 435/325, 536/23.51

ABSTRACT:

This invention relates to bovine placental lactogen, amino acid sequences thereof, DNA sequences coding therefor, its production by synthetic means and its use to produce a biological response in cattle.

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Doc. Front	Claims	FIGS	Draw. Des.
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☐ 53. Document ID: US 6130207 A

L10: Entry 53 of 80

File: USPT

Oct 10, 2000

US-PAT-NO: 6130207

DOCUMENT-IDENTIFIER: US 6130207 A

TITLE: Cell-specific molecule and method for importing DNA into a nucleus

DATE-ISSUED: October 10, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dean; David Andrew	Mobile	AL		
Zimmer; Warren Eugene	Mobile	AL		

US-CL-CURRENT: 514/44; 424/93.21, 435/320.1, 435/325, 435/455, 435/458, 536/23.1,  
536/24.1

**ABSTRACT:**

The invention provides a cell-specific nuclear targeting molecule having a nucleic acid sequence which includes a binding site for a nuclear DNA binding protein expressed only in a specific cell type. The invention further provides a plasmid for targeting a DNA molecule into the nuclei of a specific cell type. The plasmid comprises the cell-specific nuclear targeting molecule and a DNA molecule to be targeted to the nuclei of the specific cell type. This plasmid of the subject invention can be introduced into various host cells, and the cell-specific nuclear targeting molecule will target the DNA molecule to the nuclei of the specific cell type. Thus, the invention further provides a method of targeting a DNA molecule into the nuclei of a specific cell type. The method comprises providing a plasmid (the plasmid comprising the cell-specific nuclear targeting molecule and the DNA molecule to be targeted) and introducing the plasmid into the cytoplasm of the specific cell type. In this method, the cell-specific nuclear targeting molecule targets the DNA molecule into the nuclei of the specific cell type.

17 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Experiments	Discussions	Claims	KMC	Draw Des.
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☐ 54. Document ID: US 6107060 A

L10: Entry 54 of 80

File: USPT

Aug 22, 2000

US-PAT-NO: 6107060

DOCUMENT-IDENTIFIER: US 6107060 A

TITLE: Starch encapsulation

DATE-ISSUED: August 22, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Keeling; Peter	Ames	IA		
Guan; Hanping	Ames	IA		

US-CL-CURRENT: 435/69.7; 435/233, 435/252.3, 435/252.33, 435/320.1, 435/71.2,  
530/344, 530/350, 530/395, 530/426

ABSTRACT:

Hybrid polypeptides are provided formed with encapsulating regions from genes that encode for anabolic proteins. More particularly, the present invention relates to recombinant nucleic acid molecules that code for genes which encapsulate an attached protein within a matrix; preferably, these genes encapsulate a desired ("payload") polypeptide within starch, and more specifically within the starch granule matrix. Expression vectors comprising these recombinant nucleic acid molecules, and hosts therefor, and more specifically the starch-bearing portions of such hosts, transformed with such vectors, are also provided. Preferably, grain containing a foreign protein encapsulated within the starch is provided, useful to produce mammalian, fish and avian food. The invention also encompasses methods of producing purified protein from starch and particularly from starch granules, and industrial uses of such protein.

20 Claims, 9 Drawing figures

Exemplary Claim Number: 1,7

Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw Des
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☐ 55. Document ID: US 6022711 A

L110: Entry 55 of 80

File: USPT

Feb 8, 2000

US-PAT-NO: 6022711

DOCUMENT-IDENTIFIER: US 6022711 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Human growth hormone variants having enhanced affinity for human growth hormone receptor at site 1

DATE-ISSUED: February 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cunningham; Brian C.	Piedmont	CA		
Lowman; Henry	Hercules	CA		
Wells; James A.	Burlingame	CA		

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 514/12, 530/399, 530/402,  
536/23.51

ABSTRACT:

Growth hormone participates in the regulation of normal growth and development processes. The binding affinity of growth hormone for its target receptors is dependent upon the interaction of site 1 and site 2 domains of growth hormone with the target receptor. Embodiments of the present invention include site 1 variants of human growth hormone which bind to target receptors with a different affinity than that of the native hormone. Embodiments of the invention further include components for the production of isolated human growth hormone variants using a host cell/vector expression system.

8 Claims, 17 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Summary	Draw. Des.
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☐ 56. Document ID: US 6015708 A

L10: Entry 56 of 80

File: USPT

Jan 18, 2000

US-PAT-NO: 6015708

DOCUMENT-IDENTIFIER: US 6015708 A

TITLE: Gene manipulation and expression using genomic elements

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sherwin; Stephen	San Francisco	CA		
Klapholz; Sue	Stanford	CA		
Skoultchi; Arthur	Larchmont	NY		

US-CL-CURRENT: 435/325; 435/254.21, 435/320.1, 435/455, 435/471, 435/70.1

ABSTRACT:

Expression of mammalian target genes is achieved by employing chromosomal target DNA, either native primary cells or YACs in a yeast host, where the YACs include a fragment of a mammalian chromosome, the fragment comprising the target gene. Employing homologous recombination, an amplifiable gene is integrated into the mammalian fragment at a site to allow for amplification. In the same step, or one or more steps, as desired, the mammalian gene and/or the transcriptional system may be modified by in vivo mutagenesis. The resulting construct from homologous recombination may then be transformed into a mammalian expression host and integrated into the host genome, either randomly or by homologous recombination. The amplifiable gene may then be amplified by an appropriate agent providing for multiple copies of the target gene and the expression host grown to provide for high yields of the desired wild-type or modified protein.

21 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Summary	Draw. Des.
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☐ 57. Document ID: US 6015686 A

L10: Entry 57 of 80

File: USPT

Jan 18, 2000

US-PAT-NO: 6015686

DOCUMENT-IDENTIFIER: US 6015686 A

TITLE: Eukaryotic layered vector initiation systems

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dubensky, Jr.; Thomas W.	Rancho Sante Fe	CA		
Polo; John M.	San Diego	CA		
Jolly; Douglas J.	Leucadia	CA		
Driver; David A.	San Diego	CA		

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/410, 435/455, 435/456, 536/23.5, 536/23.72, 536/24.1

ABSTRACT:

The present invention provides compositions and methods for utilizing recombinant alphavirus vectors. Also disclosed are compositions and methods for making and utilizing eukaryotic layered vector initiation systems.

20 Claims, 37 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Att. Initial	Claims	KWIC	Draw Des
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☐ 58. Document ID: US 6008049 A

L10: Entry 58 of 80

File: USPT

Dec 28, 1999

US-PAT-NO: 6008049

DOCUMENT-IDENTIFIER: US 6008049 A

TITLE: Diffusion gradient bioreactor and extracorporeal liver device

DATE-ISSUED: December 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Naughton; Brian A.	El Cajon	CA		
Halberstadt; Craig R.	La Jolla	CA		
Sibanda; Benson	Oceanside	CA		

US-CL-CURRENT: 435/395; 435/1.1, 435/1.2, 435/2, 435/289.1, 435/297.1, 435/297.2, 435/298.1, 435/299.1, 435/325, 435/370, 435/373, 435/401

ABSTRACT:

A tissue engineering bioreactor is disclosed for growing three-dimensional tissue. Cells are seeded onto a mesh and provided with two media flows, each contacting a different side of the cells. The media flows contain different concentrations of nutrients, allowing nutrients to be delivered to the cells by diffusion gradient. The bioreactor can be used to grow liver tissue, and designed as an extracorporeal liver assist device in which blood or plasma is exposed to the three-dimensional liver tissue. The blood or plasma from a patient directed to flow against the liver tissue. The liver tissue is further exposed on its opposite side to media providing nutrients and gases. The device provides porous boundaries between the blood or plasma, tissue, and media, allowing nutrient and protein delivery by diffusion gradient to dialyze a patient's blood.

19 Claims, 13 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Exemplary	Claims	KWIC	Draw. Des.
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☐ 59. Document ID: US 6004805 A

L10: Entry 59 of 80

File: USPT

Dec 21, 1999

US-PAT-NO: 6004805

DOCUMENT-IDENTIFIER: US 6004805 A

TITLE: Transcriptional enhancer from milk protein genes

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Casperson; Gerald F.	Ballwin	MO		
Schmidhauser; Christian T.	Berkeley	CA		
Bissell; Mina J.	Berkeley	CA		

US-CL-CURRENT: 435/325; 435/243, 435/320.1, 435/410, 536/24.1

ABSTRACT:

The invention relates to novel enhancer nucleotide sequences which stimulate transcription of heterologous DNA in cells in culture. The enhancers are derived from major milk protein genes by the process of deletion mapping and functional analysis. The invention also relates to expression vectors containing the novel enhancers.

10 Claims, 8 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Exemplary	Claims	KWIC	Draw. Des.
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☐ 60. Document ID: US 5981211 A



US-PAT-NO: 5981211

DOCUMENT-IDENTIFIER: US 5981211 A

TITLE: Maintaining cells for an extended time by entrapment in a contracted matrix

DATE-ISSUED: November 9, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hu; Wei-Shou	Falcon Heights	MN		
Cerra; Frank Bernard	Edina	MN		
Nyberg; Scott Lyle	St. Louis Park	MN		
Scholz; Matthew Thomas	Woodbury	MN		
Shatford; Russell A.	Minneapolis	MN		

US-CL-CURRENT: 435/41, 435/177, 435/182, 435/289.1, 435/297.2, 435/297.4, 435/325,  
435/363, 435/382, 435/395, 435/396, 435/400, 435/401, 435/70.1, 435/813

## ABSTRACT:

Methods of maintaining animal cells for product production, for supporting hepatocyte function and viability to treat a patient suffering from hepatic failure and for preserving tissue-specific function of mammalian cells are carried out with a bioreactor containing a feed and waste chamber and a cell chamber separated by a selectively permeable membrane. Within the cell chamber, a biocompatible contracted three-dimensional gel matrix entraps animal cells or genetic modifications thereof, and a liquid phase contains a concentrated solution of the cell product. The bioreactor uses only two chambers to achieve three distinct zones within the bioreactor. The bioreactor can be of either hollow fiber or flat-bed configuration. In the configuration using hollow fibers, the two fluid paths correspond to the cavity surrounding the hollow fibers (the extracapillary space), and to the lumens of the hollow fibers themselves. Both fluid paths have inlet and outlet ports. Communication between the two fluid paths is across the permeable medium--the hollow fiber material. To prepare a bioartificial liver, hepatocytes are inoculated into the hollow fibers in a solution which quickly forms a highly porous gel. The gel subsequently contracts, leaving an open channel within the hollow fiber adjacent to the gel core entrapped hepatocytes. This channel can be perfused with nutrient media for hepatocytes. The channel can also serve as a waste stream to remove toxins that the hepatocytes have modified to a water soluble form.

22 Claims, 31 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	SPRINT	SEARCHED	Claims	KWIC	Draw Des
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☐ 61. Document ID: US 5955346 A

L10: Entry 61 of 80

File: USPT

Sep 21, 1999

US-PAT-NO: 5955346

DOCUMENT-IDENTIFIER: US 5955346 A

TITLE: Variants of human prolactin and human placental lactogen

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05

DATE-ISSUED: September 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wells; James A.	Burlingame	CA		
Cunningham; Brian C.	Piedmont	CA		

US-CL-CURRENT: 435/252.3; 435/320.1, 435/325, 435/69.4, 530/399, 536/23.51

ABSTRACT:

The invention provides methods for the systematic analysis of the structure and function of polypeptides by identifying active domains which influence the activity of the polypeptide with a target substance. Such active domains are determined by substituting selected amino acid segments of the polypeptide with an analogous polypeptide segment from an analog to the polypeptide. The analog has a different activity with the target substance as compared to the parent polypeptide. The activities of the segment-substituted polypeptides are compared to the same activity for the parent polypeptide for the target. A comparison of such activities provides an indication of the location of the active domain in the parent polypeptide. The invention also provides methods for identifying the active amino acid residues within the active domain of the parent polypeptide. The method comprises substituting a scanning amino acid for one of the amino acid residues within the active domain of the parent polypeptide and assaying the residue-substituted polypeptide so formed with a target substance. The invention further provides polypeptide variants comprising segment-substituted and residue-substituted growth hormones, prolactins and placental lactogens.

26 Claims, 57 Drawing figures

Exemplary Claim Number: 1,4

Number of Drawing Sheets: 54

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	MMIC	Draw. Des.
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☐ 62. Document ID: US 5932439 A

L10: Entry 62 of 80

File: USPT

Aug 3, 1999

US-PAT-NO: 5932439

DOCUMENT-IDENTIFIER: US 5932439 A

TITLE: Escherichia coli K-12 strains for production of recombinant proteins

DATE-ISSUED: August 3, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogosian; Gregg	Ballwin	MO		

US-CL-CURRENT: 435/69.1; 435/252.1, 435/252.3, 435/252.33, 435/69.4

ABSTRACT:

Novel Escherichia coli K-12 strains comprising diminished catechol production and/or orotate phosphoribosyltransferase activity levels of at least about 30 units, and methods for the use of such novel Escherichia coli K-12 strains in increasing the

production of heterologous proteins therein are disclosed.

24 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw Des
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☐ 63. Document ID: US 5919999 A

L10: Entry 63 of 80

File: USPT

Jul 6, 1999

US-PAT-NO: 5919999

DOCUMENT-IDENTIFIER: US 5919999 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Enhanced transport with a plastid membrane transport protein

DATE-ISSUED: July 6, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ko; Kenton	Kingston			CA
Pang; Peng	Montreal			CA

US-CL-CURRENT: 800/298; 435/243, 435/252.3, 435/252.31, 435/252.33, 435/320.1,  
435/419, 435/468, 536/23.6, 800/278, 800/306, 800/317.4

ABSTRACT:

A novel method to enhance translocation of molecules across or into cellular membranes using a plastid protein transport gene is described. The method can also be used to incorporate substances into membranes of organisms. Nucleic acid constructs include those which express a plastid protein transport protein or its equivalent in cells of all organisms.

36 Claims, 6 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw Des
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☐ 64. Document ID: US 5854026 A

L10: Entry 64 of 80

File: USPT

Dec 29, 1998

US-PAT-NO: 5854026

DOCUMENT-IDENTIFIER: US 5854026 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Human growth hormone variant having enhanced affinity for human growth hormone receptor at site 1

DATE-ISSUED: December 29, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cunningham; Brian C.	Piedmont	CA		
Wells; James A.	Burlingame	CA		

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 435/455, 435/471, 530/399,  
530/402, 536/23.51

## ABSTRACT:

A human growth hormone variant including the set of amino acid substitutions H18A, Q22A, F25A, D26A, Q29A, E65A, K168A, E174A is disclosed. Also disclosed is a nucleic acid encoding this variant, along with a vector including the nucleic acid, a host cell including the vector, and a process for preparing the variant. The variant has enhanced affinity for human growth hormone receptor at site 1.

6 Claims, 17 Drawing figures  
 Exemplary Claim Number: 1  
 Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw Des
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☐ 65. Document ID: US 5849535 A

L10: Entry 65 of 80

File: USPT

Dec 15, 1998

US-PAT-NO: 5849535

DOCUMENT-IDENTIFIER: US 5849535 A

TITLE: Human growth hormone variants

DATE-ISSUED: December 15, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cunningham; Brian C.	San Bruno	CA		
Lowman; Henry B.	Hercules	CA		
Wells; James A.	Burlingame	CA		
Clark; Ross G.	Pacifica	CA		
Olson; Kenneth	Burlingame	CA		
Fuh; Germaine G.	Pacifica	CA		

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 530/399, 530/402, 530/416,  
536/23.51

## ABSTRACT:

Human growth hormone variants, DNA encoding the variants, vectors, host cells, pegylated forms of the variants, as well as methods of making the variants are disclosed.

22 Claims, 20 Drawing figures  
 Exemplary Claim Number: 1  
 Number of Drawing Sheets: 14

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 66. Document ID: US 5843723 A

L10: Entry 66 of 80

File: USPT

Dec 1, 1998

US-PAT-NO: 5843723

DOCUMENT-IDENTIFIER: US 5843723 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Alphavirus vector constructs

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dubensky, Jr.; Thomas W.	Rancho Santa Fe	CA		
Polo; John M.	San Diego	CA		
Ibanez; Carlos E.	San Diego	CA		
Chang; Stephen M. W.	San Diego	CA		
Jolly; Douglas J.	Leucadia	CA		
Driver; David A.	San Diego	CA		
Belli; Barbara A.	San Diego	CA		

US-CL-CURRENT: 435/69.3; 435/235.1, 435/320.1, 435/325

ABSTRACT:

The present invention provides compositions and method,, for utilizing recombinant alphavirus vectors.

47 Claims, 37 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 67. Document ID: US 5808006 A

L10: Entry 67 of 80

File: USPT

Sep 15, 1998

US-PAT-NO: 5808006

DOCUMENT-IDENTIFIER: US 5808006 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Refolding of polypeptides like recombinant insulin-like growth factor IGF-I

DATE-ISSUED: September 15, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Builder; Stuart	Belmont	CA		

Hart; Roger	Burlingame	CA
Lester; Philip	San Lorenzo	CA
Reifsnnyder; David	San Mateo	CA

US-CL-CURRENT: 530/399; 435/252.3, 435/320.1, 435/69.4, 530/303, 530/350, 530/418,  
530/419, 530/420, 530/422, 530/423, 530/424

ABSTRACT:

A composition is provided comprising about 0.1 to 15 mg/ml of a polypeptide in a buffer having a pH of about 7-12 comprising about 5-40% (v/v) of an alcoholic or polar aprotic solvent, about 0.2 to 3M of an alkaline earth, alkali metal, or ammonium salt, about 0.1 to 9M of a chaotropic agent, and about 0.01 to 15 .mu.M of a copper or manganese salt. The buffer is suitably used in a method for refolding improperly folded polypeptides.

27 Claims, 12 Drawing figures  
 Exemplary Claim Number: 1  
 Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Pub. Number	Claims	KWIC	Draw. Des.
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☐ 68. Document ID: US 5789245 A

L10: Entry 68 of 80

File: USPT

Aug 4, 1998

US-PAT-NO: 5789245

DOCUMENT-IDENTIFIER: US 5789245 A

TITLE: Alphavirus structural protein expression cassettes

DATE-ISSUED: August 4, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dubensky, Jr.; Thomas W.	Rancho Sante Fe	CA		
Polo; John M.	San Diego	CA		
Ibanez; Carlos E.	San Diego	CA		
Chang; Stephen M. W.	San Diego	CA		
Jolly; Douglas J.	Leucadia	CA		
Driver; David A.	San Diego	CA		

US-CL-CURRENT: 435/320.1; 435/325, 435/69.1, 536/23.72

ABSTRACT:

The present invention provides compositions and methods for utilizing recombinant alphavirus vectors. Also disclosed are compositions and methods for making and utilizing eukaryotic layered vector initiation systems.

29 Claims, 35 Drawing figures  
 Exemplary Claim Number: 1  
 Number of Drawing Sheets: 30

☐ 69. Document ID: US 5770580 A

L10: Entry 69 of 80

File: USPT

Jun 23, 1998

US-PAT-NO: 5770580

DOCUMENT-IDENTIFIER: US 5770580 A

TITLE: Somatic gene therapy to cells associated with fluid spaces

DATE-ISSUED: June 23, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ledley; Fred D.	Houston	TX		
O'Malley, Jr.; Bert W.	Houston	TX		

US-CL-CURRENT: 514/44; 435/320.1, 435/325, 435/69.1

ABSTRACT:

This invention relates to somatic gene therapy to cells associated with fluid spaces, such as follicles of the thyroid, the synovium of the joint, the vitreous of the eye and the inner or middle ear. Formulated DNA expression vectors are introduced with or without formulation elements into fluid spaces under conditions in which cells associated with the fluid space can incorporate the formulated DNA expression vector. Formulated DNA expression-mediated gene therapy allows treatment of diseases involving cells associated with fluid spaces.

14 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

☐ 70. Document ID: US 5756672 A

L10: Entry 70 of 80

File: USPT

May 26, 1998

US-PAT-NO: 5756672

DOCUMENT-IDENTIFIER: US 5756672 A

TITLE: Refolding of polypeptides

DATE-ISSUED: May 26, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Builder; Stuart	Belmont	CA		
Hart; Roger	Burlingame	CA		
Lester; Philip	San Lorenzo	CA		
Reifsnyder; David	San Mateo	CA		

US-CL-CURRENT: 530/350; 435/252.3, 435/320.1, 435/69.1, 530/418, 530/419, 530/420,  
530/422, 530/423, 530/424

ABSTRACT:

A composition is provided comprising about 0.1 to 15 mg/mL of a polypeptide in a buffer having a pH of about 7-12 comprising about 5-40% (v/v) of an alcoholic or polar aprotic solvent, about 0.2 to 3M of an alkaline earth, alkali metal, or ammonium salt, about 0.1 to 9M of a chaotropic agent, and about 0.01 to 15 .mu.M of a copper or manganese salt. The buffer is suitably used in a method for refolding improperly folded polypeptides.

27 Claims, 12 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KNOW	Draw Des
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☐ 71. Document ID: US 5691169 A

L10: Entry 71 of 80

File: USPT

Nov 25, 1997

US-PAT-NO: 5691169

DOCUMENT-IDENTIFIER: US 5691169 A

TITLE: Process for preparing a desired protein

DATE-ISSUED: November 25, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dalb.o slashed.ge; Henrik	Virum			DK
Pedersen; John	Kokkedal			DK
Christensen; Thorkild	Aller.o slashed.d			DK
Ringsted; J.o slashed.rli Winnie	Br.o slashed.ndby			DK
Jessen; Torben Ehler	Holbaek			DK

US-CL-CURRENT: 435/69.7; 435/252.3, 435/252.33, 435/320.1, 435/325, 435/69.4, 435/78,  
530/303, 530/399

ABSTRACT:

A desired protein having the formula:

A-B-C-P

wherein

- a) A is Lys or Arg, and B and C are arbitrary amino acids, or
- b) A is an arbitrary amino acid different from Pro, Lys and Arg, and B and/or C is Pro,

is produced from a biosynthetically formed amino acid extended protein having the formula:

X-A-B-C-P



wherein A, B, C and P are as defined above, and X is an amino acid sequence with an even number of amino acids, of which the first one, seen from the N-terminal end, is different from Lys and Arg, all other uneven amino acids are different from Pro, Lys and Arg, and all even amino acids are different from Pro, by reaction with the enzyme dipeptidyl aminopeptidase (DAP I). The desired protein is obtained in a pure state. Thus, e.g. hGH without content of Met-hGH may be produced by the process.

44 Claims, 0 Drawing figures  
Exemplary Claim Number: 44

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Drawings	Claims	FWOC	Draw Des
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☐ 72. Document ID: US 5672486 A

L10: Entry 72 of 80

File: USPT

Sep 30, 1997

US-PAT-NO: 5672486  
DOCUMENT-IDENTIFIER: US 5672486 A

TITLE: Protein polyligands joined to a stable protein core

DATE-ISSUED: September 30, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Soulillou; Jean-Paul	Nantes Cedex			FR

US-CL-CURRENT: 435/69.1; 435/325, 435/365, 435/366, 435/372.1, 435/372.2, 536/23.1, 536/23.4, 536/23.51, 536/23.53

ABSTRACT:

Stable polyligands are provided by preparing fused proteins, where the fused protein comprises a ligand at one terminus and a subunit of a multimeric unit protein at the other terminus, where the fused protein is able to assemble to provide a polyligand. The polyligands find use in modulating physiological processes by inhibiting ligand induced signal transduction by surface membrane protein receptors and/or in the case of .mu. chain use, by complement mediated killing or any other effector functions. The molecule may be composed solely, of human components to avoid an immune response by the recipient.

8 Claims, 3 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Drawings	Claims	FWOC	Draw Des
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☐ 73. Document ID: US 5663304 A

L10: Entry 73 of 80

File: USPT

Sep 2, 1997

US-PAT-NO: 5663304  
DOCUMENT-IDENTIFIER: US 5663304 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Refolding of misfolded insulin-like growth factor-I

DATE-ISSUED: September 2, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Builder; Stuart	Belmont	CA		
Hart; Roger	Burlingame	CA		
Lester; Philip	San Lorenzo	CA		
Reifsnnyder; David	San Mateo	CA		

US-CL-CURRENT: 530/399; 435/252.3, 435/320.1, 435/69.4, 530/418, 530/420, 530/422, 530/424

ABSTRACT:

A composition is provided comprising about 0.1 to 15 mg/mL of a polypeptide in a buffer having a pH of about 7-12 comprising about 5-40% (v/v) of an alcoholic or polar aprotic solvent, about 0.2 to 3M of an alkaline earth, alkali metal, or ammonium salt, about 0.1 to 9M of a chaotropic agent, and about 0.01 to 15 .mu.M of a copper or manganese salt. The buffer is suitably used in a method for refolding improperly folded polypeptides.

12 Claims, 12 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KNMC	Draw Des
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☐ 74. Document ID: US 5625033 A

L10: Entry 74 of 80

File: USPT

Apr 29, 1997

US-PAT-NO: 5625033

DOCUMENT-IDENTIFIER: US 5625033 A

TITLE: Totally synthetic affinity reagents

DATE-ISSUED: April 29, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kay; Brian K.	Chapel Hill	NC		
Fowlkes; Dana M.	Chapel Hill	NC		

US-CL-CURRENT: 530/324; 435/252.3, 435/320.1, 435/69.1, 435/69.7, 435/7.1, 435/7.2, 530/300, 530/350, 536/23.1, 536/23.5

ABSTRACT:

A novel method for producing novel and/or improved heterofunctional binding fusion proteins termed Totally Synthetic Affinity Reagents (TSARs) is disclosed. TSARs are concatenated heterofunctional proteins, polypeptides or peptides comprising at least

two functional regions: a binding domain with affinity for a ligand and a second effector peptide portion that is chemically or biologically active. In one embodiment, the heterofunctional proteins, polypeptides or peptides further comprise a linker peptide portion between the binding domain and the second active peptide portion. The linker peptide can be either susceptible or not susceptible to cleavage by enzymatic or chemical means. Novel and/or improved heterofunctional binding reagents as well as methods for using the reagents for a variety of in vitro and in vivo applications are also disclosed.

1 Claims, 26 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 75. Document ID: US 5607842 A

L10: Entry 75 of 80

File: USPT

Mar 4, 1997

US-PAT-NO: 5607842

DOCUMENT-IDENTIFIER: US 5607842 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Use of tRNA genes to stabilize the inheritance of unstable plasmids in populations of growing cells

DATE-ISSUED: March 4, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cohen; Stanley N.	Portola Valley	CA		
Vogtli; Martin	Lenzburg			CH

US-CL-CURRENT: 435/69.1; 435/252.3, 435/252.33, 435/320.1

ABSTRACT:

Expression systems are provided, where plasmids can be safely maintained in a prokaryotic host, by providing for a tRNA gene for an essential tRNA in a tRNA gene negative background. A non-selective medium can be employed to permit vigorous growth of the host and efficient expression of a protein of interest.

14 Claims, 6 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 76. Document ID: US 5604116 A

L10: Entry 76 of 80

File: USPT

Feb 18, 1997

US-PAT-NO: 5604116

DOCUMENT-IDENTIFIER: US 5604116 A

TITLE: Interleukin-3 (IL-3) multiple mutation polypeptides, recombinant production of the same, and corresponding therapeutic methods

DATE-ISSUED: February 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bauer; S. Christopher	New Haven	MO		
Abrams; Mark A.	St. Louis	MO		
Braford-Goldberg; Sarah R.	St. Louis	MO		
Caparon; Maire H.	Chesterfield	MO		
Easton; Alan M.	Maryland Heights	MO		
Klein; Barbara K.	Town & Country	MO		
McKearn; John P.	Glencoe	MO		
Olins; Peter	Glencoe	MO		
Paik; Kumnan	Ballwin	MO		
Thomas; John W.	Town & Country	MO		

US-CL-CURRENT: 435/69.52; 424/85.2, 435/252.3, 435/254.11, 435/320.1, 435/325,  
530/351, 536/23.5

ABSTRACT:

The present invention relates to recombinant human interleukin-3 (hIL-3) variant or mutant proteins (muteins). These hIL-3 muteins contain amino acid substitutions and may also have amino acid deletions at both the N- and C- termini. The invention also relates to pharmaceutical compositions containing the hIL-3 muteins and methods for using them. Additionally, the present invention relates to recombinant expression vectors comprising nucleotide sequences encoding the hIL-3 muteins, related microbial expression systems, and processes for making the hIL-3 muteins using the microbial expression systems. Included in the present invention are deletion mutants of hIL-3 in which from 1 to 14 amino acids have been deleted from the N-terminus, and from 1 to 15 amino acids 119 to 133 have been deleted from the C-terminus, and which also contain amino acid substitutions in the polypeptide. These hIL-3 multiple mutation polypeptides may have biological activities similar to or better than hIL-3 and, in some cases, may also have an improved side effect profile.

31 Claims, 25 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 25

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Draw Des
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☐ 77. Document ID: US 5508192 A

L10: Entry 77 of 80

File: USPT

Apr 16, 1996

US-PAT-NO: 5508192

DOCUMENT-IDENTIFIER: US 5508192 A

TITLE: Bacterial host strains for producing proteolytically sensitive polypeptides

DATE-ISSUED: April 16, 1996

INVENTOR-INFORMATION:

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.11&ref=10&dbname=PGPB,USPT,U...> 2/22/05

NAME	CITY	STATE	ZIP CODE	COUNTRY
Georgiou; George	Austin	TX		
Baneyx; Francois	Seattle	WA		

US-CL-CURRENT: 435/252.3; 435/252.33, 435/252.8, 435/69.1

ABSTRACT:

The invention relates to methods of producing recombinant polypeptides in protease-deficient bacterial hosts. Constructs of single, double, triple and quadruple protease deficient and protease/rpoH mutants of E. coli are described. Proteolytically sensitive polypeptides may be expressed and secreted in such cells, providing significantly increased yields compared with expression in wild-type strains.

7 Claims, 5 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 78. Document ID: US 5399489 A

L10: Entry 78 of 80

File: USPT

Mar 21, 1995

US-PAT-NO: 5399489

DOCUMENT-IDENTIFIER: US 5399489 A

TITLE: Production of proteins in procaryotes

DATE-ISSUED: March 21, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Krivi; Gwen G.	St. Louis	MO		

US-CL-CURRENT: 435/69.4; 435/252.3, 435/252.33, 435/320.1, 435/488, 536/23.51

ABSTRACT:

A method for preparing polypeptides in bacteria with an alanine rather than a methionine at the N-terminus. The DNA sequence expressed has an alanine codon immediately following from one to about three contiguous methionine codons including a translation start signal and allows for the expression of polypeptides having the amino acid sequence of, for example, naturally occurring eucaryotic proteins such as various bovine and porcine somatotropin species.

29 Claims, 10 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 79. Document ID: US 5304472 A

L10: Entry 79 of 80

File: USPT

Apr 19, 1994

US-PAT-NO: 5304472

DOCUMENT-IDENTIFIER: US 5304472 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Method of controlling polypeptide production in bacterial cells

DATE-ISSUED: April 19, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bass; Steven	Redwood City	CA		
Swartz; James R.	Menlo Park	CA		

US-CL-CURRENT: 435/69.1; 435/252.3, 435/252.33, 435/320.1, 536/23.7

ABSTRACT:

Nucleic acid is provided encoding a molecule having certain variations within the phosphate-binding region of native E. coli PstS. Additionally provided are bacterial cells comprising this nucleic acid under control of the native pstS gene promoter, and optionally further comprising nucleic acid encoding a polypeptide of interest under control of the alkaline phosphatase (AP) promoter. Bacterial cells containing both pstS variant nucleic acid and polypeptide nucleic acid are cultured in a medium at a concentration of inorganic phosphate that at all phases of cell growth is above the level at which the cells are starved for phosphate. Alternatively, the cells are cultured under conditions whereby the concentration of inorganic phosphate in the culture medium is controlled during the production period so that the polypeptide is produced under the control of the partially induced AP promoter.

20 Claims, 26 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 31

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Drawings	Draw Des
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☐ 80. Document ID: US 4670393 A

L10: Entry 80 of 80

File: USPT

Jun 2, 1987

US-PAT-NO: 4670393

DOCUMENT-IDENTIFIER: US 4670393 A

TITLE: DNA vectors encoding a novel human growth hormone-variant protein

DATE-ISSUED: June 2, 1987

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Seeburg; Peter H.	San Francisco	CA		

US-CL-CURRENT: 435/325; 435/243, 435/252.3, 435/252.31, 435/252.33, 435/69.4,

435/91.41, 536/23.1, 536/23.51, 930/120

ABSTRACT:

A novel non-allelic human growth hormone variant encoding gene is isolated using recombinant DNA techniques. The human growth hormone variant gene or a human growth hormone variant gene fused to a presequence may be inserted into cloning or expression vehicles which in turn may be used to transform cells in culture.

5 Claims, 5 Drawing figures

Exemplary Claim Number: 1,5

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw. Des.
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☐ 1. Document ID: US 20050003414 A1

Using default format because multiple data bases are involved.

L13: Entry 1 of 30

File: PGPB

Jan 6, 2005

PGPUB-DOCUMENT-NUMBER: 20050003414

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050003414 A1

TITLE: Ovomucoid promoters and methods of use

PUBLICATION-DATE: January 6, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Harvey, Alex J.	Athens	GA	US	
Leavitt, Markley C.	Watkinsville	GA	US	
Wang, Youliang	Monroe	GA	US	

US-CL-CURRENT: [435/6](#); [435/320.1](#), [435/349](#), [435/69.1](#), [530/395](#), [536/23.5](#), [800/19](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMOC	Draw Des
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☐ 2. Document ID: US 20040157289 A1

L13: Entry 2 of 30

File: PGPB

Aug 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040157289

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040157289 A1

TITLE: Protein expression system

PUBLICATION-DATE: August 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Salerno, John C.	Averill Park	NY	US	
Hanna, Michael	Averill Park	NY	US	
Koretz, Jane F.	Slingerlands	NY	US	
Crone, Donna	Troy	NY	US	
Smith, Susan M. E.	Averill Park	NY	US	

US-CL-CURRENT: [435/69.1](#); [435/320.1](#), [435/325](#), [435/6](#), [530/350](#), [536/23.5](#)



ABSTRACT:

The present invention relates to a novel protein expression system having an oligonucleotide encoding a small heat shock protein (sHSP) operably linked to a promoter and an oligonucleotide encoding a protein of interest. In one embodiment the expressed sHSP is a truncated .alpha.-crystallin polypeptide derived from a wild-type .alpha.-crystallin protein, wherein the truncated sHSP lacks an N-terminal sequence present in the wild-type .alpha.-crystallin polypeptide. In an additional embodiment, a protein is coexpressed with a sHSP, thereby increasing the level of expression, enhancing folding and increasing the solubility of the protein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMC	Draw Des
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□ 3. Document ID: US 20040096877 A1

L13: Entry 3 of 30

File: PGPB

May 20, 2004

PGPUB-DOCUMENT-NUMBER: 20040096877

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040096877 A1

TITLE: Novel proteins and nucleic acids encoding same

PUBLICATION-DATE: May 20, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Taupier, Raymond J. JR.	East Haven	CT	US	
Padigar, Muralidhara	Branford	CT	US	
Rastelli, Luca	Guilford	CT	US	
Spaderna, Steven Kurt	Berlin	CT	US	
Shimkets, Richard A.	West Haven	CT	US	
Zerhusen, Bryan D.	Branford	CT	US	
Spytek, Kimberly Ann	New Haven	CT	US	
Shenoy, Suresh G.	Branford	CT	US	
Li, Li	Cheshire	CT	US	
Gusev, Vladimir Y.	Madison	CT	US	
Grosse, William M.	Branford	CT	US	
Alsobrook, John P. II	Madison	CT	US	
Lepley, Denise M.	Branford	CT	US	
Burgess, Catherine E.	Wethersfield	CT	US	
Gerlach, Valerie L.	Branford	CT	US	
Ellerman, Karen	Branford	CT	US	
MacDougall, John R.	Hamden	CT	US	
Stone, David J.	Guilford	CT	US	
Smithson, Glennnda	Guilford	CT	US	

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/69.1, 530/350, 530/388.1, 536/23.5

ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies,

which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 4. Document ID: US 20040014174 A1

L13: Entry 4 of 30

File: PGPB

Jan 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040014174  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040014174 A1

TITLE: Expression of polypeptides in chloroplasts, and compositions and methods for expressing same

PUBLICATION-DATE: January 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mayfield, Stephen P.	Cardiff	CA	US	
Franklin, Scott	Cardiff	CA	US	

US-CL-CURRENT: 435/69.1; 435/320.1, 435/419, 530/387.1, 536/23.5

ABSTRACT:

Methods of producing one or more polypeptides in a plant chloroplast, including methods of producing polypeptides that specifically associate in a plant chloroplast to generate a functional protein complex, are provided. An isolated polynucleotide that includes (or encodes) a first ribosome binding sequence (RBS) operatively linked to a second RBS, such that the first RBS directs translation of a polypeptide in a prokaryote and the second RBS directs translation of the polypeptide in a chloroplast, also is provided, as is a vector containing such a polynucleotide, particularly a chloroplast vector and a chloroplast/prokaryote shuttle vector. Also provided is a synthetic polynucleotide, which is chloroplast codon biased. A plant cell that is genetically modified to contain a polynucleotide or vector as described above, as well as transgenic plants containing or derived from such a genetically modified cell, are provide. Polypeptides encoded by a synthetic polynucleotide as described also are provided.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 5. Document ID: US 20040005560 A1

L13: Entry 5 of 30

File: PGPB

Jan 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040005560  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040005560 A1

TITLE: Novel full-length cDNA

PUBLICATION-DATE: January 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Isogai, Takao	Ibaraki		JP	
Sugiyama, Tomoyasu	Tokyo		JP	
Otsuki, Tetsuji	Chiba		JP	
Wakamatsu, Ai	Chiba		JP	
Sato, Hiroyuki	Osaka		JP	
Ishii, Shizuko	Chiba		JP	
Yamamoto, Jun-Ichi	Chiba		JP	
Isono, Yuuko	Chiba		JP	
Hio, Yuri	Chiba		JP	
Otsuka, Kaoru	Saitama		JP	
Nagai, Keiichi	Tokyo		JP	
Irie, Ryotaro	Chiba		JP	
Tamechika, Ichiro	Osaka		JP	
Seki, Naohiko	Chiba		JP	
Yoshikawa, Tsutomu	Chiba		JP	
Otsuka, Motoyuki	Tokyo		JP	
Nagahari, Kenji	Tokyo		JP	
Masuho, Yasuhiko	Tokyo		JP	

US-CL-CURRENT: 435/6; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 530/388.1, 536/23.5

ABSTRACT:

Novel full-length cDNAs are provided.

2443 cDNA derived from human have been isolated. The full-length nucleotide sequences of the cDNA and amino acid sequences encoded by the nucleotide sequences have been determined. Because the cDNA of the present invention are full-length and contain the translation start site, they provide information useful for analyzing the functions of the polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMIC	Draw. Des.
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☐ 6. Document ID: US 20040002114 A1

L13: Entry 6 of 30

File: PGPB

Jan 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040002114

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040002114 A1

TITLE: Nucleic acids encoding a G-protein coupled receptor involved in islet cell signaling

PUBLICATION-DATE: January 1, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gregoire, Francine M.	Lafayette	CA	US	
Johnson, Jeffrey D.	Moraga	CA	US	
Blume, John E.	Danville	CA	US	

US-CL-CURRENT: 435/7.1; 435/320.1, 435/325, 435/69.1, 514/12, 530/350, 536/23.5

## ABSTRACT:

The invention provides isolated nucleic acid and amino acid sequences of human and murine islet cell G-protein coupled receptors, antibodies to such receptors, methods of detecting such nucleic acids and receptors, methods of screening for modulators of islet cell G-protein coupled receptors and methods of treating mammals with modulators of islet cell G-protein coupled receptor activity.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 7. Document ID: US 20030232054 A1

L13: Entry 7 of 30

File: PGPB

Dec 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030232054

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030232054 A1

TITLE: Novel nucleic acids and polypeptides

PUBLICATION-DATE: December 18, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Tang, Y. Tom	San Jose	CA	US	
Liu, Chenghua	San Jose	CA	US	
Asundi, Vinod	Foster City	CA	US	
Chen, Rui-Hong	Foster City	CA	US	
Qian, Xiaohong B.	San Jose	CA	US	
Wang, Zhi Wei	Athens	CA	US	
Wehrman, Tom	Stanford	CA	US	
Zhang, Jie	Campbell	CA	US	
Zhou, Ping	Cupertino	CA	US	
Cao, Yi-Cheng	Sunnyvale	CA	US	
Drmanac, Radoje T.	Palo Alto	CA	US	

US-CL-CURRENT: 424/185.1; 435/320.1, 435/325, 435/6, 435/69.1, 530/350, 536/23.5

## ABSTRACT:

The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

☐ 8. Document ID: US 20030170628 A1

L13: Entry 8 of 30

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170628

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030170628 A1

TITLE: Human cDNAs and proteins and uses thereof

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bejanin, Stephane	Paris		FR	
Tanaka, Hiroaki	Antony		FR	

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/69.1, 435/7.1, 530/350, 530/388.1, 536/23.5

ABSTRACT:

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

☐ 9. Document ID: US 20030096354 A1

L13: Entry 9 of 30

File: PGPB

May 22, 2003

PGPUB-DOCUMENT-NUMBER: 20030096354

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030096354 A1

TITLE: Peyer's patch and/or M-cell targeting ligands

PUBLICATION-DATE: May 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
O'Mahony, Daniel	Blackrock		IE	
Lambkin, Imelda	Sutton		IE	
Higgins, Lisa	Donabate		IE	

US-CL-CURRENT: 435/69.1; 435/183, 435/320.1, 435/325, 530/324, 536/23.5

ABSTRACT:

Purified synthetic polypeptide ligands for targeting pharmaceutical agents and carriers comprising such agents to intestinal epithelial tissue, especially Peyer's patch and/or M-Cell tissue. Also methods of using the ligands.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 10. Document ID: US 20010016315 A1

L13: Entry 10 of 30

File: PGPB

Aug 23, 2001

PGPUB-DOCUMENT-NUMBER: 20010016315  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20010016315 A1

TITLE: PIT-1 GENE POLYMORPHISM AND TRAIT SELECTION IN ANIMALS

PUBLICATION-DATE: August 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
RENAVILLE, ROBERT	GEMBLOUX		BE	
PORTETELLE, DANIEL	MEUX LA BRUYERE		BE	

US-CL-CURRENT: 435/6; 536/23.5, 536/24.31

ABSTRACT:

The invention concerns a genetic marker used to distinguish amongst animals a trait for milk producing capabilities or meat producing capabilities said genetic marker comprising a mutation in a fragment of a Pit-1 gene wherein three patterns of alleles are observed in which one of said allele patterns was fully mutated and being indicative of a trait of muscularity in said animal, while the two other allelic patterns, one being mutated and non/mutated, the other being non-mutated/non-mutated being indicative of a milk producing trait in said animal.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 11. Document ID: US 6794363 B2

L13: Entry 11 of 30

File: USPT

Sep 21, 2004

US-PAT-NO: 6794363  
DOCUMENT-IDENTIFIER: US 6794363 B2

TITLE: Isolated amyloid inhibitor protein (AIP) and compositions thereof

DATE-ISSUED: September 21, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bejanin; Stephane	Paris			FR

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.14&ref=13&dbname=PGPB,USPT,U...> 2/22/05

US-CL-CURRENT: 514/12; 435/23, 530/350, 536/23.5

## ABSTRACT:

The invention provides polynucleotides and polypeptides encoding an isolated amyloid inhibitor protein (APIP) and compositions thereof. The polypeptides of the subject invention can be used to inhibit the catabolism or sequential cleavage of amyloid beta precursor protein (APP) by Sequential cleavage of APP by beta secretase and gamma secretase.

10 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Examiner	Supervisor	Claims	KWMC	Draw Des
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☐ 12. Document ID: US 6686179 B2

L13: Entry 12 of 30

File: USPT

Feb 3, 2004

US-PAT-NO: 6686179

DOCUMENT-IDENTIFIER: US 6686179 B2

**\*\* See image for Certificate of Correction \*\***

TITLE: Fusion polypeptides of human serum albumin and a therapeutically active polypeptide

DATE-ISSUED: February 3, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fleer; Reinhard	Bures-sur-Yvette			FR
Fournier; Alain	Chatenay-Malabry			FR
Guillon; Jean-Dominique	Paris			FR
Jung; Gerard	Montlhery			FR
Yeh; Patrice	Paris			FR

US-CL-CURRENT: 435/69.7; 435/252.3, 435/320.1, 435/325, 530/350, 530/362, 536/23.4

## ABSTRACT:

Biologically active polypeptides comprising a therapeutically active polypeptide fused to human serum albumin or a variant thereof, methods for the preparation thereof, nucleotide sequences encoding such fusion polypeptides, expression cassettes comprising such nucleotide sequences, self-replicating plasmids containing such expression cassettes, and pharmaceutical compositions containing said fusion polypeptides.

25 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 25

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 13. Document ID: US 6548739 B2

L13: Entry 13 of 30

File: USPT

Apr 15, 2003

US-PAT-NO: 6548739

DOCUMENT-IDENTIFIER: US 6548739 B2

TITLE: Method for activating peroxisome proliferator activated receptor-.gamma.

DATE-ISSUED: April 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Forman; Barry	Newport Beach	CA		

US-CL-CURRENT: 800/18; 536/23.4, 800/25

ABSTRACT:

The invention relates to a method of identifying nuclear receptor controlled genes in specific tissues. In particular, the method also provides a method of activating PPAR.gamma. nuclear receptor controlled target genes in vivo in a tissue-specific manner.

1 Claims, 15 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 14. Document ID: US 6512162 B2

L13: Entry 14 of 30

File: USPT

Jan 28, 2003

US-PAT-NO: 6512162

DOCUMENT-IDENTIFIER: US 6512162 B2

TITLE: Expression of eukaryotic peptides in plant plastids

DATE-ISSUED: January 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McBride; Kevin E.	Davis	CA		
Nehra; Narender	Chesterfield	MO		
Russell; Douglas A.	Madison	WI		
Stalker; David M.	Woodland	CA		
Staub; Jeffrey M.	Chesterfield	MO		

US-CL-CURRENT: 800/278; 435/419, 435/468, 536/23.5, 536/23.6, 536/23.7, 536/23.72, 536/24.1, 800/287, 800/288

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.14&ref=13&dbname=PGPB,USPT,U...> 2/22/05



ABSTRACT:

Constructs and methods are provided for expressing peptides derived from eukaryotic organisms in plant plastids. Constructs have a promoter functional in a plant plastid, a DNA sequence encoding a peptide derived from an eukaryotic organism and a transcription termination region. Other elements include a selectable marker for selection of plant cells comprising a plastid expressing the marker and DNA regions of homology to the genome of the plastid and optionally a ribosome binding site joined to the promoter. By methods using such constructs high levels of eukaryotic peptides, such as mammalian proteins, are produced in a plant cell by growing plant cells under conditions whereby the DNA encoding sequences re expressed to produce eukaryotic peptide in said plastid.

13 Claims, 15 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 15

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Abstract	Claims	KNOW	Draw Des
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☐ 15. Document ID: US 6500629 B1

L13: Entry 15 of 30

File: USPT

Dec 31, 2002

US-PAT-NO: 6500629  
DOCUMENT-IDENTIFIER: US 6500629 B1

TITLE: Materials and methods for detection and quantitation of an analyte

DATE-ISSUED: December 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cleaver; Brian D.	Archer	FL		
Green; Mike L.	Gainesville	FL		

US-CL-CURRENT: 435/7.92; 422/101, 422/102, 422/55, 422/56, 422/57, 422/58, 422/59, 422/60, 422/61, 422/70, 435/188, 435/28, 435/4, 435/5, 435/6, 435/7.1, 435/7.21, 435/810, 436/507, 436/513, 436/518, 436/531, 436/548, 436/808, 436/810, 436/814, 436/818, 436/826, 530/300, 530/350, 536/23.4, 536/23.7

ABSTRACT:

The subject invention pertains to methods and materials for accurately assessing the presence or absence of analytes of interest in samples, particularly in physiological samples. The subject invention involves utilizing a ligand binding domain (LBD) of a receptor to selectively capture the analyte target specific for that LBD. In one embodiment, the receptor is a protein or polypeptide. The ligand binding domain is allowed to react with a sample and the presence or amount of ligand (i.e., target analyte) bound by the LBD is determined. Suitable analytes include soluble analytes such as hormones, enzymes, lipoproteins, bacterial or viral antigens, immunoglobulines, lymphokines, cytokines, drugs, soluble cancer antigens, and the like. The methods of the present invention can be performed in both liquid-phase and solid-phase.

24 Claims, 16 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 16. Document ID: US 6492142 B2

L13: Entry 16 of 30

File: USPT

Dec 10, 2002

US-PAT-NO: 6492142

DOCUMENT-IDENTIFIER: US 6492142 B2

**\*\* See image for Certificate of Correction \*\***

TITLE: Pit-1 gene polymorphism and trait selection in animals

DATE-ISSUED: December 10, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Renaville; Robert	Gembloux			BE
Portetelle; Daniel	Bruyere			BE

US-CL-CURRENT: 435/91.2; 435/6, 536/23.1, 536/23.5, 536/24.3, 536/24.32

ABSTRACT:

The present invention relates to a genetic marker used to distinguish amongst animals a trait for milk producing capabilities or muscular beef producing capabilities, said genetic marker comprising a mutation in a fragment of a Pit-1 gene. After digestion with a restriction endonuclease, three allele patterns are observed, the fully digested pattern being indicative of a trait for muscularity in said animal, while the intermediate digested / nondigested pattern or the nondigested pattern being indicative of a milk producing trait in said animal. A process and kit using this genetic marker is also disclosed.

7 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Des
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☐ 17. Document ID: US 6465239 B1

L13: Entry 17 of 30

File: USPT

Oct 15, 2002

US-PAT-NO: 6465239

DOCUMENT-IDENTIFIER: US 6465239 B1

TITLE: Growth differentiation factor-8 nucleic acid and polypeptides from aquatic species and non-human transgenic aquatic species

DATE-ISSUED: October 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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Baltimore MD

Baltimore MD

US-CL-CURRENT: 435/252.3; 435/254.11, 435/320.1, 435/69.1, 435/69.4, 536/23.4

**ABSTRACT:**

A transgenic non-human aquatic organisms, such as piscine, crustacea, mollusks, and the like, having a transgene which results in disrupting the production of and/or activity of growth differentiation factor-8 (GDF-8) chromosomally integrated into the germ cells of the animal is disclosed. Also disclosed are methods for making such organisms and nucleic acid sequences encoding GDF-8 polypeptides from such aquatic organisms.

14 Claims, 32 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 29

Full	Title	Citation	Front	Review	Classification	Date	Reference	Approved	Disapproved	Claims	KMMC	Draw Des
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☐ 18. Document ID: US 6265174 B1

L13: Entry 18 of 30

File: USPT

Jul 24, 2001

US-PAT-NO: 6265174

DOCUMENT-IDENTIFIER: US 6265174 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Methods and compositions for identifying and modulating ctionprotein-interactions

DATE-ISSUED: July 24, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Menzel; Rolf	Yardley	PA		
Hsing; Weihong	Wrightstown	PA		
Taggart; Pamela A.	Plainsboro	NJ		

US-CL-CURRENT: 435/7.2; 435/69.7, 435/7.1, 530/350, 536/23.4

ABSTRACT:

The present invention relates to methods and compositions for the identification and modulation of protein-protein interactions. Specifically, the invention relates to methods and compositions for efficient, sensitive, high-throughput CadC-based screens for the identification of peptides involved in protein-protein interactions, including, but not limited to, peptides comprising amino acid sequences involved in receptor dimerization. The invention further relates to methods and compositions for efficient, sensitive, high-throughput CadC-based screens for compounds which modulate protein-protein interactions, such as, for example, modulation of interactions between protein sequences involved in receptor interactions, e.g., dimerization.

51 Claims, 32 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 22

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstracts	Drawings	Claims	KWIC	Draw. Des.
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☐ 19. Document ID: US 6235500 B1

L13: Entry 19 of 30

File: USPT

May 22, 2001

US-PAT-NO: 6235500

DOCUMENT-IDENTIFIER: US 6235500 B1

TITLE: Oxygen-binding heme proteins incorporating circularly-permuted globins

DATE-ISSUED: May 22, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sligar; Stephen G.	Urbana	IL		
Sanders; Kevin	Champaign	IL		

US-CL-CURRENT: 435/69.6; 435/252.3, 435/320.1, 435/325, 530/385, 536/23.5

ABSTRACT:

Described are preferred oxygen-binding heme proteins which include at least one hemoglobin molecule incorporating at least one circularly permuted globin, especially an alpha globin. More preferred heme proteins of the invention include high molecular weight hemoglobin multimers. Also described are polynucleotides encoding proteins of the invention, and vectors and host cells including the same.

28 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstracts	Drawings	Claims	KWIC	Draw. Des.
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☐ 20. Document ID: US 6015694 A

L13: Entry 20 of 30

File: USPT

Jan 18, 2000

US-PAT-NO: 6015694

DOCUMENT-IDENTIFIER: US 6015694 A

TITLE: Method for stimulating an immune response utilizing recombinant alphavirus particles

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dubensky, Jr.; Thomas W.	Rancho Sante Fe	CA		
Polo; John M.	San Diego	CA		
Chang; Steven M.W.	San Diego	CA		

Jolly; Douglas J.

Leucadia

CA

US-CL-CURRENT: 435/69.3; 424/199.1, 424/204.1, 424/228.1, 424/234.1, 424/265.1,  
424/274.1, 424/277.1, 536/23.5, 536/23.7 , 536/23.72

ABSTRACT:

The present invention provides compositions and methods for utilizing recombinant alphavirus vectors. Also disclosed are compositions and methods for making and utilizing eukaryotic layered vector initiation systems.

11 Claims, 35 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Draw. Des.	Claims	RMIC	Draw. Des.
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☐ 21. Document ID: US 6015686 A

L13: Entry 21 of 30

File: USPT

Jan 18, 2000

US-PAT-NO: 6015686

DOCUMENT-IDENTIFIER: US 6015686 A

TITLE: Eukaryotic layered vector initiation systems

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dubensky, Jr.; Thomas W.	Rancho Sante Fe	CA		
Polo; John M.	San Diego	CA		
Jolly; Douglas J.	Leucadia	CA		
Driver; David A.	San Diego	CA		

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/410, 435/455, 435/456, 536/23.5,  
536/23.72, 536/24.1

ABSTRACT:

The present invention provides compositions and methods for utilizing recombinant alphavirus vectors. Also disclosed are compositions and methods for making and utilizing eukaryotic layered vector initiation systems.

20 Claims, 37 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Draw. Des.	Claims	RMIC	Draw. Des.
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☐ 22. Document ID: US 6001646 A

L13: Entry 22 of 30

File: USPT

Dec 14, 1999

US-PAT-NO: 6001646  
DOCUMENT-IDENTIFIER: US 6001646 A

TITLE: Method and vector for expression and isolation of biologically active molecules in urine

DATE-ISSUED: December 14, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sun; Tung-Tien	Scarsdale	NY		

US-CL-CURRENT: 435/320.1; 536/23.5, 536/24.1

ABSTRACT:

A vector is provided which contains a promoter construct linked to a heterologous gene encoding a selected biologically active molecule wherein the promoter construct is capable of directing urothelial expression of the heterologous gene. Methods of isolating biologically active molecules from urine of animals transfected with this vector and transgenic animals containing this vector are also provided.

1 Claims, 5 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	MMMC	Draw. Des.
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☐ 23. Document ID: US 5948635 A

L13: Entry 23 of 30

File: USPT

Sep 7, 1999

US-PAT-NO: 5948635  
DOCUMENT-IDENTIFIER: US 5948635 A

TITLE: Totally Synthetic Affinity Reagents

DATE-ISSUED: September 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kay; Brian K	Chapel Hill	NC		
Fowlkes; Dana M.	Chapel Hill	NC		
Adey; Nils B.	Carrboro	NC		
Sparks; Andrew B.	Carrboro	NC		

US-CL-CURRENT: 435/69.1; 435/471, 435/69.7, 435/7.1, 536/23.4

ABSTRACT:

A novel method for producing novel and/or improved heterofunctional binding fusion proteins termed Totally Synthetic Affinity Reagents (TSARs) is disclosed. TSARs are concatenated heterofunctional proteins, polypeptides or peptides comprising at least two functional regions: a binding domain with affinity for a ligand and a second effector peptide portion that is chemically or biologically active. In one

embodiment, the heterofunctional proteins, polypeptides or peptides further comprise a linker peptide portion between the binding domain and the second active peptide portion. The linker peptide can be either susceptible or not susceptible to cleavage by enzymatic or chemical means. Novel and/or improved heterofunctional binding reagents as well as methods for using the reagents for a variety of in vitro and in vivo applications are also disclosed.

39 Claims, 27 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 26

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. Des.
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☐ 24. Document ID: US 5817486 A

L13: Entry 24 of 30

File: USPT

Oct 6, 1998

US-PAT-NO: 5817486  
DOCUMENT-IDENTIFIER: US 5817486 A

TITLE: Recombinant human interleukin-3 (IL-3) multiple mutation polypeptides

DATE-ISSUED: October 6, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bauer; S. Christopher	New Haven	MO		
Braford-Goldberg; Sarah Ruth	St. Louis	MO		
Caparon; Maire Helena	Chesterfield	MO		
Easton; Alan Michael	Maryland Heights	MO		
McKearn; John Patrick	Pacific	MO		
Olins; Peter Olafs	Glencoe	MO		

US-CL-CURRENT: 435/69.52; 424/85.2, 530/351, 536/23.5, 930/141

ABSTRACT:

The present invention relates to recombinant human interleukin-3 (hIL-3) variant or mutant proteins (muteins). These hIL-3 muteins contain amino acid substitutions and may also have amino acid deletions at both the N- and C-termini. The invention also relates to pharmaceutical compositions containing the hIL-3 muteins and methods for using them. Additionally, the present invention relates to recombinant expression vectors comprising nucleotide sequences encoding the hIL-3 muteins, related microbial expression systems, and processes for making the hIL-3 muteins using the microbial expression systems. Included in the present invention are deletion mutants of hIL-3 in which from 1 to 14 amino acids have been deleted from the N-terminus, and from 1 to 15 amino acids (a.a.119 to 133) have been deleted from the C-terminus, and which also contain amino acid substitutions in the polypeptide. These hIL-3 multiple mutation polypeptides may have biological activities similar to or better than hIL-3 and, in some cases, may also have an improved side effect profile.

130 Claims, 25 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 25

☐ 25. Document ID: US 5672486 A

L13: Entry 25 of 30

File: USPT

Sep 30, 1997

US-PAT-NO: 5672486

DOCUMENT-IDENTIFIER: US 5672486 A

TITLE: Protein polyligands joined to a stable protein core

DATE-ISSUED: September 30, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Soulillou; Jean-Paul	Nantes Cedex			FR

US-CL-CURRENT: 435/69.1; 435/325, 435/365, 435/366, 435/372.1, 435/372.2, 536/23.1, 536/23.4, 536/23.51, 536/23.53

ABSTRACT:

Stable polyligands are provided by preparing fused proteins, where the fused protein comprises a ligand at one terminus and a subunit of a multimeric unit protein at the other terminus, where the fused protein is able to assemble to provide a polyligand. The polyligands find use in modulating physiological processes by inhibiting ligand induced signal transduction by surface membrane protein receptors and/or in the case of .mu. chain use, by complement mediated killing or any other effector functions. The molecule may be composed solely, of human components to avoid an immune response by the recipient.

8 Claims, 3 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

☐ 26. Document ID: US 5625033 A

L13: Entry 26 of 30

File: USPT

Apr 29, 1997

US-PAT-NO: 5625033

DOCUMENT-IDENTIFIER: US 5625033 A

TITLE: Totally synthetic affinity reagents

DATE-ISSUED: April 29, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kay; Brian K.	Chapel Hill	NC		
Fowlkes; Dana M.	Chapel Hill	NC		

US-CL-CURRENT: 530/324; 435/252.3, 435/320.1, 435/69.1, 435/69.7, 435/7.1, 435/7.2,

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.14&ref=13&dbname=PGPB,USPT,U...> 2/22/05



ABSTRACT:

A novel method for producing novel and/or improved heterofunctional binding fusion proteins termed Totally Synthetic Affinity Reagents (TSARs) is disclosed. TSARs are concatenated heterofunctional proteins, polypeptides or peptides comprising at least two functional regions: a binding domain with affinity for a ligand and a second effector peptide portion that is chemically or biologically active. In one embodiment, the heterofunctional proteins, polypeptides or peptides further comprise a linker peptide portion between the binding domain and the second active peptide portion. The linker peptide can be either susceptible or not susceptible to cleavage by enzymatic or chemical means. Novel and/or improved heterofunctional binding reagents as well as methods for using the reagents for a variety of in vitro and in vivo applications are also disclosed.

1 Claims, 26 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw. Des.
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☐ 27. Document ID: US 5604116 A

L13: Entry 27 of 30

File: USPT

Feb 18, 1997

US-PAT-NO: 5604116

DOCUMENT-IDENTIFIER: US 5604116 A

TITLE: Interleukin-3 (IL-3) multiple mutation polypeptides, recombinant production of the same, and corresponding therapeutic methods

DATE-ISSUED: February 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bauer; S. Christopher	New Haven	MO		
Abrams; Mark A.	St. Louis	MO		
Braford-Goldberg; Sarah R.	St. Louis	MO		
Caparon; Maire H.	Chesterfield	MO		
Easton; Alan M.	Maryland Heights	MO		
Klein; Barbara K.	Town & Country	MO		
McKearn; John P.	Glencoe	MO		
Olins; Peter	Glencoe	MO		
Paik; Kumnan	Ballwin	MO		
Thomas; John W.	Town & Country	MO		

US-CL-CURRENT: 435/69.52; 424/85.2, 435/252.3, 435/254.11, 435/320.1, 435/325, 530/351, 536/23.5

ABSTRACT:

The present invention relates to recombinant human interleukin-3 (hIL-3) variant or mutant proteins (muteins). These hIL-3 muteins contain amino acid substitutions and may also have amino acid deletions at both the N- and C- termini. The invention also

relates to pharmaceutical compositions containing the hIL-3 muteins and methods for using them. Additionally, the present invention relates to recombinant expression vectors comprising nucleotide sequences encoding the hIL-3 muteins, related microbial expression systems, and processes for making the hIL-3 muteins using the microbial expression systems. Included in the present invention are deletion mutants of hIL-3 in which from 1 to 14 amino acids have been deleted from the N-terminus, and from 1 to 15 amino acids 119 to 133 have been deleted from the C-terminus, and which also contain amino acid substitutions in the polypeptide. These hIL-3 multiple mutation polypeptides may have biological activities similar to or better than hIL-3 and, in some cases, may also have an improved side effect profile.

31 Claims, 25 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 25

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw. Des.
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☐ 28. Document ID: US 5324641 A

L13: Entry 28 of 30

File: USPT

Jun 28, 1994

US-PAT-NO: 5324641

DOCUMENT-IDENTIFIER: US 5324641 A

TITLE: DNA sequences encoding insulin precursors and methods of production

DATE-ISSUED: June 28, 1994

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jonassen; Ib	Valby			DK
Clausen; Ib G.	Charlottenlund			DK
Jensen; Ejner B.	Virum			DK
Svendsen; Allan	Birkerød			DK

US-CL-CURRENT: 435/69.9; 435/254.21, 435/69.4, 435/69.7, 435/69.8, 536/23.4, 536/23.51

#### ABSTRACT:

DNA molecule and process for producing insulin precursors having the formula B(1-29)-H.sub.1 --X.sub.2 --Y.sub.2 --Y.sub.1 --A(1-21), wherein B(1-29) are the 29 first amino acid residues of the B chain of human insulin starting from the N-terminus, A(1-21) are the 21 amino acid residues of the A chain of human insulin, X.sub.1 represents a peptide bond or one naturally-occurring alpha-amino acid residues, X.sub.2 represents Glu or Asp, and Y.sub.1 and Y.sub.2 each represent Lys or Arg, the positions A6 and A11, A7 and B7 and A20 and B19, respectively, are connected through sulphur bridges, and, if desired, one or more of the glutamic acid residues in positions A4, A17, B13 and B21 are substituted by another naturally-occurring alpha-amino acid residue having an uncharged side chain, are provided. The insulin precursors are prepared by culturing a yeast strain transformed with a replicable plasmid comprising a DNA sequence encoding an insulin precursor of the above formula in a suitable medium and isolating the insulin precursor thus formed from the culture medium. The insulin precursor can be converted into human insulin or insulin analogues by enzymatic treatment in a manner known per se.

10 Claims, 2 Drawing figures

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Exemplary Claim Number: 1  
Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw. Des.
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☐ 29. Document ID: US 4981956 A

L13: Entry 29 of 30

File: USPT

Jan 1, 1991

US-PAT-NO: 4981956  
DOCUMENT-IDENTIFIER: US 4981956 A

TITLE: DNA sequences encoding bovine growth factors

DATE-ISSUED: January 1, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Larsen; Brent R.	St. Charles	MO		
Siegel; Ned R.	Belleville	IL		
Kotts; Claire E.	St. Louis	MO		
McGrath; Michael F.	Chesterfield	MO		
Ogden; Sharon D.	St. Louis	MO		
Krivi; Gwen G.	Olivette	MO		
Minnerly; John C.	Creve Coeur	MO		

US-CL-CURRENT: 536/23.51; 536/23.5, 536/24.31

ABSTRACT:

This invention relates to novel peptides having utility for promotion of growth and/or lactation in animals, to processes and DNA useful in production of such peptides, and to methods utilizing such peptides to promote growth or lactation in animals. In some embodiments, the invention is directed to peptides having bovine IGF-II biological activity, to production of such peptides, and to their use in effecting proliferation of certain cells (e.g. mammary epithelial or muscle) or in enhancing lactation in cattle or other animals.

9 Claims, 0 Drawing figures  
Exemplary Claim Number: 1,9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw. Des.
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☐ 30. Document ID: US 4495280 A

L13: Entry 30 of 30

File: USPT

Jan 22, 1985

US-PAT-NO: 4495280  
DOCUMENT-IDENTIFIER: US 4495280 A

TITLE: Cloned high signal strength promoters

DATE-ISSUED: January 22, 1985

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.14&ref=13&dbname=PGPB,USPT,U...> 2/22/05

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bujard; Hermann G.	Heidelberg			DE
Chang; Annie C. Y.	Palo Alto	CA		
Cohen; Stanley N.	Portola Valley	CA		

US-CL-CURRENT: 435/6; 435/29, 435/481, 435/69.1, 435/91.4, 435/91.41, 536/23.4, 536/24.1

## ABSTRACT:

Method for preparing high signal strength promoters and terminators and DNA compositions employing such promoters and terminators. T5 phage is cleaved to provide for DNA sequences having intact promoters. These promoters are inserted into vectors separated from a balanced terminator by a gene of interest and the terminator is desirably followed by a marker allowing for selection of transformants. High efficiencies in transcription of DNA can be achieved with the highly active T5 promoters. The promoters and terminators are used in hybrid DNA for efficient expression of structural genes and transcription to provide RNA sequences.

15 Claims, 1 Drawing figures  
Exemplary Claim Number: 1,11  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw Des
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Terms	Documents
L12 AND somatotropin	30

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Search Results - Record(s) 1 through 23 of 23 returned.

☐ 1. Document ID: US 20050037022 A1

Using default format because multiple data bases are involved.

L21: Entry 1 of 23

File: PGPB

Feb 17, 2005

PGPUB-DOCUMENT-NUMBER: 20050037022  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20050037022 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: February 17, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [424/192.1](#); [435/320.1](#), [435/325](#), [435/69.7](#), [530/363](#), [536/23.5](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KWC</a>	<a href="#">Draw Des</a>
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☐ 2. Document ID: US 20040171123 A1

L21: Entry 2 of 23

File: PGPB

Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040171123  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040171123 A1

TITLE: ALBUMIN FUSION PROTEINS

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [435/69.7](#); [424/192.1](#), [435/252.3](#), [435/325](#), [536/23.4](#)

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 3. Document ID: US 20040166560 A1

L21: Entry 3 of 23

File: PGPB

Aug 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040166560  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040166560 A1

TITLE: Expression of recombinant proteinase k <I> from tritirachium album </I>in yeast

PUBLICATION-DATE: August 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mueller, Rainer	Penzberg		DE	
Thalhofer, Johann-Peter	Weilheim		DE	
Geipel, Frank	Penzberg		DE	
Glaser, Stephan	Seehaupt		DE	
Hoelke, Werner	Penzberg		DE	
Schoen, Helmut	Penzberg		DE	
Kirschbaum, Thomas	Munich		DE	

US-CL-CURRENT: 435/69.1; 435/254.2, 435/254.23, 435/483

ABSTRACT:

The invention concerns a method for the expression of a gene coding for a soluble proteinase K in yeast e.g. in *Pichia pastoris* with subsequent secretion into the culture medium. In addition a method for purifying the heterologously expressed and secreted proteinase K is described.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 4. Document ID: US 20040043469 A1

L21: Entry 4 of 23

File: PGPB

Mar 4, 2004

PGPUB-DOCUMENT-NUMBER: 20040043469  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040043469 A1

TITLE: Dipeptidyl peptidase i crystal structure and its uses

PUBLICATION-DATE: March 4, 2004

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Olsen, Johan Gotthardt	Copenhagen N		DK	
Kadziola, Anders	Hellerup		DK	
Dahl, Soren Weis	Rungsted Kyst		DK	
Lauritzen, Connie	Rodovre		DK	
Larsen, Sine	Horsholm		DK	
Pedersen, John	Niva		DK	
Turk, Susan	Ljubljana		SI	
Podobnik, Marietka	Ljubljana-Polje		SI	
Stern, Igor	Ljubljana		SI	

US-CL-CURRENT: 435/226

## ABSTRACT:

The present invention relates to structural studies of dipeptidyl peptidase I (DPPI) proteins, modified dipeptidyl peptidase I (DPPI) proteins and DPPI co-complexes. Included in the present invention is a crystal of a dipeptidyl peptidase I (DPPI) and corresponding structural information obtained by X-ray crystallography from rat and human DPPI. In addition, this invention relates to methods for using structure co-ordinates of DPPI, mutants hereof and co-complexes, to design compounds that bind to the active site or accessory binding sites of DPPI and to design improved inhibitors of DPPI or homologues of the enzyme.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 5. Document ID: US 20040010134 A1

L21: Entry 5 of 23

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040010134

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040010134 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: January 15, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 536/23.5; 435/320.1, 435/325, 435/69.7, 530/363

## ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion

proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 6. Document ID: US 20030219875 A1

L21: Entry 6 of 23

File: PGPB

Nov 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030219875  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030219875 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 514/12, 530/362, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 7. Document ID: US 20030199043 A1

L21: Entry 7 of 23

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199043  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030199043 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David J.	Berwyn	PA	US	
Sleep, Darrell	West Bridgford	PA	GB	



Prior, Christopher P.	Rosemont	PA	US
Sadeghi, Homayoun	Doylestown	PA	US
Turner, Andrew J.	Eagleville		US

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 435/69.5, 530/351, 530/363, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 8. Document ID: US 20030176665 A1

L21: Entry 8 of 23

File: PGPB

Sep 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030176665

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030176665 A1

TITLE: Soluble complexes of target proteins and peptidyl prolyl isomerase chaperones and methods of making and using them

PUBLICATION-DATE: September 18, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Scholz, Christian	Penzberg		DE	
Andres, Herbert	Penzberg		DE	
Faatz, Elke	Huglfing		DE	
Engel, Alfred	Tutzing		DE	
Sizmann, Dorothea	Penzberg		DE	

US-CL-CURRENT: 530/395; 435/68.1

ABSTRACT:

The present invention relates to the diagnosis of HIV infections. It especially teaches the production of a soluble retroviral surface glycoprotein- (or transmembrane glycoprotein)-chaperone complex and the advantageous use of a chaperone-antigen complex especially in the detection of antibodies to HIV in immunoassays, preferably according to the double antigen bridge concept, or as an immunogen. The invention also discloses soluble complexes comprising a variant of HIV-1 gp41 or a variant of HIV-2 gp36, respectively, and a chaperone selected from the peptidyl-prolyl-isomerase class of chaperones. Variants comprising specific amino-acid substitutions in the N-helical domain of HIV-1 gp41 or of HIV-2 gp36, respectively, are also described.

☐ 9. Document ID: US 20030171267 A1

L21: Entry 9 of 23

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171267  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030171267 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Sadeghi, Homayoun	Doylestown	PA	US	
Prior, Christopher P.	Rosemont	PA	US	
Turner, Andrew J.	Eagleville	PA	US	

US-CL-CURRENT: 514/12; 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

☐ 10. Document ID: US 20030125247 A1

L21: Entry 10 of 23

File: PGPB

Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030125247  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030125247 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

## ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 11. Document ID: US 20030119038 A1

L21: Entry 11 of 23

File: PGPB

Jun 26, 2003

PGPUB-DOCUMENT-NUMBER: 20030119038

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030119038 A1

TITLE: NARC1, novel subtilase-like homologs

PUBLICATION-DATE: June 26, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bingham, Brendan William	Newtown	PA	US	
Chiang, Lillian Wei-Ming	Princeton	NJ	US	
Jenkins, Lorayne P.	Hightstown	NJ	US	
Frederick Lo, Ching-Hsiung	Pennington	NJ	US	
Naureckiene, Saule	Old Bridge	NJ	US	
Ozenberger, Bradley Alton	Newtown	PA	US	
Wood, Andrew	Newtown	PA	US	

US-CL-CURRENT: 435/6; 435/184, 435/320.1, 435/325, 435/69.2, 435/7.23, 536/23.2

## ABSTRACT:

The present invention relates to a newly identified human and mouse programmed cell death (PCD) protein having homology to mammalian subtilases. The invention also relates to polynucleotides encoding the protein. The invention further relates to methods using the polypeptides and polynucleotides as a target for diagnosis and treatment in disorders mediated by or related to the protein. The invention further relates to drug-screening methods using the polypeptides and polynucleotides to identify agonists and antagonists for diagnosis and treatment. The invention further encompasses agonists and antagonists based on the polypeptides and polynucleotides. The invention further relates to procedures for producing the polypeptides and polynucleotides.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 12. Document ID: US 20030104578 A1

L21: Entry 12 of 23

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104578  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030104578 A1

TITLE: Recombinant fusion proteins to growth hormone and serum albumin

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David James	Nottingham		GB	

US-CL-CURRENT: 435/69.4; 435/320.1, 435/325, 530/399, 536/23.5

ABSTRACT:

Fusion proteins of albumin and growth hormone, or fusions of variants of either, are secreted well in yeast and have increased serum and storage stability.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMC	Draw Des
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☐ 13. Document ID: US 20020193564 A1

L21: Entry 13 of 23

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020193564  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020193564 A1

TITLE: Oligomeric chaperone proteins

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Fergal Conan	Les Martres de Veyre		FR	
Chatellier, Jean	Les Martres de Veyre		FR	
Fersht, Alan Roy	Cambridge		GB	

US-CL-CURRENT: 530/350; 435/235.1

ABSTRACT:

The invention relates to a polypeptide monomer capable of oligomerisation, said monomer comprising a polypeptide which potentiates protein folding inserted into the sequence of a subunit of an oligomerisable protein scaffold.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMC	Draw Des
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☐ 14. Document ID: US 20020164712 A1

L21: Entry 14 of 23

File: PGPB

Nov 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020164712  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020164712 A1

TITLE: Chimeric protein containing an intramolecular chaperone-like sequence

PUBLICATION-DATE: November 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gan, Zhong-Ru	Tonghua City		CN	

US-CL-CURRENT: 435/69.4; 435/226, 435/320.1, 435/325, 530/303, 536/23.2

ABSTRACT:

The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMC	Draw Des
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☐ 15. Document ID: US 20020137118 A1

L21: Entry 15 of 23

File: PGPB

Sep 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020137118  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020137118 A1

TITLE: Biologically active protein folding intermediates

PUBLICATION-DATE: September 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Inouye, Masayori	Piscataway	NJ	US	
Shinde, Ujwal	Gladstone	OR	US	
Fu, Xuan	Piscataway	NJ	US	

US-CL-CURRENT: 435/23; 435/68.1

ABSTRACT:

This invention provides biologically active protein folding intermediates and methods of making and using the same.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 16. Document ID: US 6709814 B1

L21: Entry 16 of 23

File: USPT

Mar 23, 2004

US-PAT-NO: 6709814

DOCUMENT-IDENTIFIER: US 6709814 B1

TITLE: Peptides causing formation of compact structures

DATE-ISSUED: March 23, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; David	San Bruno	CA		
Gururaja; Tarikere	Sunnyvale	CA		

US-CL-CURRENT: 435/6; 435/320.1, 435/7.1

ABSTRACT:

The present invention is directed to compositions and methods including peptides which have a high affinity for each other and, when linked to a protein, are used to help fold the protein into a compact structure. By virtue of its stability and constraints, this scaffold can prolong the activity of any embedded protein sequences in the presence of cellular and other proteases. The compact structure can have other functional sequences embedded, and is preferable to linear and less constrained peptides for library screening, for creating structurally-biased peptide libraries and for targeting to specific intracellular and extracellular compartments. Compositions of the present invention can be displayed on the surface of viruses, archaeobacteria, prokaryotic and eukaryotic cells for library screening, drug screening and display. Methods of the present invention are useful for screening in vivo for intracellular effector proteins modulating signaling pathways and to identify interacting proteins in vitro. Thus, the present invention is useful as a scaffold for gene therapy, for the isolation of new therapeutic drug leads and for potential use as a therapeutic in physiological fluids.

14 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 17. Document ID: US 5719021 A

L21: Entry 17 of 23

File: USPT

Feb 17, 1998

US-PAT-NO: 5719021

DOCUMENT-IDENTIFIER: US 5719021 A

TITLE: Protein activation

DATE-ISSUED: February 17, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Inouye; Masayori	Bridgewater	NJ		

US-CL-CURRENT: 435/6

ABSTRACT:

A method is disclosed for producing a biochemically active polypeptide from a biochemically inactive polypeptide. The polypeptide is normally but need not be expressed in a precursor form containing a pro-sequence. The inactive polypeptide is reacted with a tailor-made activating peptide. The activating peptide can be synthetic or made by recombinant DNA procedure. The activating peptide is a peptide which contains one or more functional domains which are necessary for folding the inactive polypeptide into a biochemically active conformation. The activating peptide may but need not contain a sequence of amino acids which is identical to the sequence of the natural occurring pro-sequence of the polypeptide. Also, a method is disclosed which permits to identify the one or more functional domains in the pro-sequence of a polypeptide which contribute(s) to the folding of the inactive polypeptide into a biochemically active conformation. The invention relates also to a tailor-made activating peptide (synthetic or by recombinant DNA) and to the biochemically active polypeptide. The protein activation method and the biochemically active proteins are of major utility in their broad applications.

23 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KMIC	Draw Des
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☐ 18. Document ID: US 5688651 A

L21: Entry 18 of 23

File: USPT

Nov 18, 1997

US-PAT-NO: 5688651

DOCUMENT-IDENTIFIER: US 5688651 A

TITLE: Prevention of protein aggregation

DATE-ISSUED: November 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Solomon; Beka	Herzlya			IL

US-CL-CURRENT: 435/7.1; 424/130.1, 436/63, 530/388.1

ABSTRACT:

A method of selecting anti-aggregation molecules with chaperone-like activity that have characteristics including binding to a native target molecule epitope with a high binding constant and are non-inhibitory to the biological activity of the target

molecule. The method molecules denaturing a target molecule in the presence of presumptive antiaggregation molecules to prevent the target molecules from self-or induced-aggregation. The nonaggregated target molecule coupled to the anti-aggregation molecule is then tested for bioactivity.

4 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	RMIC	Draw Des
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☐ 19. Document ID: WO 2004078773 A1

L21: Entry 19 of 23

File: EPAB

Sep 16, 2004

PUB-NO: WO2004078773A1

DOCUMENT-IDENTIFIER: WO 2004078773 A1

TITLE: STABILIZING PROTEINS FOR USE IN PERSONAL CARE, COSMETIC, AND PHARMACEUTICAL PRODUCTS

PUBN-DATE: September 16, 2004

INVENTOR-INFORMATION:

NAME

COUNTRY

SHINDE, UJWAL P

US

SUBBIAN, EZHILKANI

US

YABUTA, YUKIHIRO

US

INT-CL (IPC): C07 H 21/04; C12 N 9/64; C12 P 21/02; C12 N 5/06  
EUR-CL (EPC): C12N009/56

ABSTRACT:

CHG DATE=20040928 STATUS=O>Several secreted proteases (Figure 5) are produced with dedicated single-turnover intramolecular chaperones (IMC) or propeptides. Protease maturation necessitates IMCs to switch from a chaperone to a protease inhibitor and subsequently into a proteolytic substrate. The present invention provides compositions and methods using environmental signals to modulate the stochastic behavior associated with the inhibitor-substrate switch between infinitely probabilistic and precisely deterministic temporal events. This provides a unique biological switch that enable proteases to function as biochemical regulators through modulation of conformational entropy of their cognate IMCs. The present invention provides compositions comprising proteases that are stabilized as inactive proteases, but that can yet be rapidly activated by external signals (Figure 4).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	RMIC	Draw Des
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☐ 20. Document ID: WO 9950302 A1

L21: Entry 20 of 23

File: EPAB

Oct 7, 1999

PUB-NO: WO009950302A1

DOCUMENT-IDENTIFIER: WO 9950302 A1



TITLE: CHIMERIC PROTEIN CONTAINING AN INTRAMOLECULAR CHAPERONE-LIKE SEQUENCE AND ITS APPLICATION TO INSULIN PRODUCTION

PUBN-DATE: October 7, 1999

INVENTOR-INFORMATION:

NAME

COUNTRY

GAN, ZHONGRU

CN

INT-CL (IPC): C07 K 19/00; C07 K 14/62; C07 K 14/61; C12 N 15/62; C12 N 1/21  
EUR-CL (EPC): C07K001/113; C07K014/47, C07K014/61 , C07K014/62

ABSTRACT:

CHG DATE=19991102 STATUS=O>The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Abstract	Claims	MMIC	Draw Des
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☐ 21. Document ID: WO 2004078773 A1

L21: Entry 21 of 23

File: DWPI

Sep 16, 2004

DERWENT-ACC-NO: 2004-662400

DERWENT-WEEK: 200464

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TITLE: Activatable protease-containing composition useful in preparation of oral care formulation, has pro-subtilisin protease with N-terminal propeptide suitable as intramolecular chaperone, and subtilisin protease with N-terminal propeptide

INVENTOR: SHINDE, U P; SUBBIAN, E ; YABUTA, Y

PRIORITY-DATA: 2003US-451883P (March 3, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 2004078773 A1</u>	September 16, 2004	E	042	C07H021/04

INT-CL (IPC): C07 H 21/04; C12 N 5/06; C12 N 9/64; C12 P 21/02

ABSTRACTED-PUB-NO: WO2004078773A

BASIC-ABSTRACT:

NOVELTY - An activatable protease-containing composition (I) has one of a pro-subtilisin protease having N-terminal propeptide suitable as intramolecular chaperone (IMC), and subtilisin protease non-covalently loaded with N-terminal propeptide

suitable as IMC, where protease are inactive, or substantially so, and (I) contains stabilizing agent and sequestered activator sufficient to rapidly activate inactive protease upon triggered release of activator.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a detergent formulation, dishwashing formulation, contact lens cleaning formulation, oral care formulation and skin care or cosmetics formulation, comprising (I); and

(2) manufacturing (I) having a prolonged protease shelf-life, comprising:

(a) obtaining the composition comprising one of a pro-subtilisin protease having an N-terminal propeptide that is IMC, and a subtilisin protease that is non-covalently loaded with an N-terminal propeptide suitable as IMC, where the protease are inactive, or substantially inactive;

(b) adding a stabilizing agent to the composition; and

(c) adding a sequestered activator sufficient to rapidly activate the inactive protease upon triggered release of the activator, to the composition and stabilizing agent, thus the protease shelf-life is prolonged in a state that is activatable upon demand by triggered release of the sequestered activator.

USE - (I) is useful for activating, upon demand, an inactive subtilisin protease, which involves obtaining (I), and triggering the activator. (I) is useful in preparation of detergent formulation, dishwashing formulation, contact lens cleaning formulation, oral care formulation, and skin care or cosmetics formulation (claimed). (I) is useful in preparation of personal care, cosmetic, therapeutic and pharmaceutical compositions (e.g., compositions for topical application). (I) is useful in the method of stabilizing proteins. (I) is useful for modulating the structural and proteolytic stability of proteases (e.g., subtilisins) through changes in the environment surrounding the precursor (e.g., prosubtilisin), for stabilizing the protein in a catalytically inactive state.

ADVANTAGE - (I) maintains proteases in an inactive state, which can be rapidly activated upon demand through an external signal. In (I), the proteolytic activity of the enzyme is stabilized against deterioration (e.g., denaturation or degradation of the enzyme molecule). (I) comprise stabilized proteases having an extended shelf-life.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	References	Claims	RMK	Draw Des
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☐ 22. Document ID: US 20020137118 A1

L21: Entry 22 of 23

File: DWPI

Sep 26, 2002

DERWENT-ACC-NO: 2003-102383

DERWENT-WEEK: 200309

COPYRIGHT 2005 DERWENT INFORMATION LTD

TITLE: Preparation of biologically-active intermediate of folding protein, by contacting folding protein intermediate with substrate or reducing agent

INVENTOR: FU, X; INOUE, M ; SHINDE, U

PRIORITY-DATA: 2000US-227468P (August 24, 2000), 2001US-0935744 (August 24, 2001)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

INT-CL (IPC): C12 P 21/06; C12 Q 1/37ABSTRACTED-PUB-NO: US20020137118A  
BASIC-ABSTRACT:

NOVELTY - Biologically-active intermediate (I) of folding protein prepared by contacting an intermediate of folding protein with a substrate or reducing agent, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a drug design assay comprising assessing a drug candidate's ability to stabilize or prevent formation of biologically-active intermediate of a folding protein.

USE - (I) is useful for preparing a biologically-active intermediate of folding protein (claimed).

DESCRIPTION OF DRAWING(S) - The figure is an X-ray crystallography image of intramolecular chaperone-subtilisin complex.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw Des
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☐ 23. Document ID: RU 2238951 C2, WO 9950302 A1, AU 9867164 A, BR 9815788 A, EP 1066328 A1, CN 1291199 A, KR 2001042383 A, US 20020164712 A1, AU 765574 B, JP 2004505601 W, MX 2000009564 A1

L21: Entry 23 of 23

File: DWPI

Oct 27, 2004

DERWENT-ACC-NO: 1999-610839

DERWENT-WEEK: 200476

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TITLE: New chimeric proteins containing human growth hormone fragment, used particularly for the production of human insulin

INVENTOR: GAN, Z

PRIORITY-DATA: 1998WO-CN00052 (March 31, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>RU 2238951 C2</u>	October 27, 2004		000	C07K019/00
<u>WO 9950302 A1</u>	October 7, 1999	E	045	C07K019/00
<u>AU 9867164 A</u>	October 18, 1999		000	C07K019/00
<u>BR 9815788 A</u>	November 28, 2000		000	C07K019/00
<u>EP 1066328 A1</u>	January 10, 2001	E	000	C07K019/00
<u>CN 1291199 A</u>	April 11, 2001		000	C07K019/00
<u>KR 2001042383 A</u>	May 25, 2001		000	C07K019/00
<u>US 20020164712 A1</u>	November 7, 2002		000	C07H021/04
<u>AU 765574 B</u>	September 25, 2003		000	C07K019/00
<u>JP 2004505601 W</u>	February 26, 2004		076	C12N015/09
<u>MX 2000009564 A1</u>	March 1, 2004		000	C07K014/61

INT-CL (IPC): C07 H 21/04; C07 K 14/61; C07 K 14/62; C07 K 19/00; C12 N 1/15; C12 N

1/19; C12 N 1/21; C12 N 1:21; C12 N 5/06; C12 N 5/10; C12 N 9/64; C12 N 15/09; C12 N 15/62; C12 P 21/02; C12 R 1/19; C12 R 1:19; G01 N 33/68; C12 N 1/21; C12 R 1:19

ABSTRACTED-PUB-NO: WO 9950302A

BASIC-ABSTRACT:

NOVELTY - New chimeric proteins contain an N-terminal fragment of human growth hormone which acts as an intramolecular chaperone.

DETAILED DESCRIPTION - (A) A novel chimeric protein comprises, from N-terminus to C-terminus:

(a) a first peptidyl fragment consisting of an amino acid sequence that has at least 40% identity to a domain containing at least the first 20 N-terminal amino acids of human growth hormone (hGH) protein, in which the percentage identity is determined over an amino acid sequence of identical size to the domain of hGH;

(b) an Arg residue, or a Lys residue, or a second peptidyl fragment consisting of at least 2 amino acids in which peptidyl fragment the most C-terminal amino acid residue is an Arg or a Lys residue, and

(c) a third peptidyl fragment consisting of an amino acid sequence containing more than 2 cysteine residues, which peptidyl fragment is not a portion of hGH protein.

INDEPENDENT CLAIMS are also included for the following:

(1) a chimeric protein consisting of an amino acid sequence (I) or (II) of 107 or 150 amino acids, respectively (sequences are given in the specification);

(2) an isolated nucleic acid comprising a nucleotide sequence (NS) encoding a chimeric protein as in (A);

(3) an isolated nucleic acid comprising a NS encoding a chimeric protein as in (1);

(4) an isolated nucleic acid comprising a NS complementary to a NS as in (2);

(5) an isolated nucleic acid hybridizable to a NS encoding the first, second and third peptidyl fragments of DNA as in (2);

(6) a recombinant cell containing nucleic acid as in (2) or (3);

(7) a process for obtaining a correctly folded first insulin-precursor-containing chimeric protein (IPCCP), comprising contacting an incorrectly folded second IPCCP, which second IPCCP consists of an intramolecular chaperone (IMC) like peptidyl fragment separated from the insulin precursor by one or more cleavable amino acid residues, with at least one chaotropic auxiliary agent in an aqueous medium, where the IMC like peptidyl fragment:

(a) contains 20 to 200 amino acid residues;

(b) is not the insulin precursor or a portion; and

(c) improves the insulin precursor folding such that the yield of the correctly folded first IPCCP when the incorrectly folded second IPCCP is contacted with the chaotropic auxiliary agent is higher than the yield of the correctly folded insulin precursor when the incorrectly folded insulin precursor, which does not contain the IMC like peptidyl fragment, is contacted with the same chaotropic auxiliary agent, and

(8) an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor, comprising:

(a) changing the amino acid sequence of the first peptidyl fragment of the chimeric

protein as in (A), obtaining the chimeric protein with the changes, contacting the chimeric protein with the changes with at least one chaotropic auxiliary agent in an aqueous medium under conditions such that the chimeric protein folds correctly, and measuring the folding yield of the chimeric protein with the changes;

(b) obtaining the same chimeric protein used in (a), but without any amino acid sequence changes as in (a), contacting the chimeric protein without any amino acid sequence changes as in (a) with at least one chaotropic auxiliary agent in an aqueous medium under the same conditions as in (a), and measuring the folding yield of the chimeric protein, and

(c) comparing the folding yield of the chimeric proteins measured in (a) and (b) respectively; in which a yield measured in (a) that equals or is greater than the yield measured in (b) indicates that the amino acid sequence improves folding of the insulin precursor.

USE - The hGH sequences are used as IMC sequences, particularly for the production of human insulin.

ADVANTAGE - The methods can provide human insulin with correctly linked cysteine bridges with fewer necessary procedural steps, and hence resulting higher yield of human insulin. The IMC sequences not only protect insulin sequences from intracellular degradation by a microorganism host, but also promote the folding of the fused insulin precursor, facilitate the solubility of the fusion protein and decrease the intermolecular interactions among the fusion proteins, thus allowing folding of the fused insulin precursor at a commercially significant high concentration, eliminate the procedural steps of cyanogen bromide cleavage, oxidative sulfitolysis and the related purification steps, and eliminate the use of high concentration of mercaptan or the use of hydrophobic absorbent resins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstracts	Abstracts	Claims	KNOW	Draw. Des.
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Terms	Documents
intramolecular chaperone	23

Display Format:

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# Hit List

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Search Results - Record(s) 1 through 23 of 23 returned.

☐ 1. Document ID: US 20050037022 A1

Using default format because multiple data bases are involved.

L21: Entry 1 of 23

File: PGPB

Feb 17, 2005

PGPUB-DOCUMENT-NUMBER: 20050037022  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20050037022 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: February 17, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [424/192.1](#); [435/320.1](#), [435/325](#), [435/69.7](#), [530/363](#), [536/23.5](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Referen</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KIMC</a>	<a href="#">Drawn Des</a>
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☐ 2. Document ID: US 20040171123 A1

L21: Entry 2 of 23

File: PGPB

Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040171123  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040171123 A1

TITLE: ALBUMIN FUSION PROTEINS

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [435/69.7](#); [424/192.1](#), [435/252.3](#), [435/325](#), [536/23.4](#)

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 3. Document ID: US 20040166560 A1

L21: Entry 3 of 23

File: PGPB

Aug 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040166560

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040166560 A1

TITLE: Expression of recombinant proteinase k <I> from tritirachium album </I>in yeast

PUBLICATION-DATE: August 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mueller, Rainer	Penzberg		DE	
Thalhofer, Johann-Peter	Weilheim		DE	
Geipel, Frank	Penzberg		DE	
Glaser, Stephan	Seehaupt		DE	
Hoelke, Werner	Penzberg		DE	
Schoen, Helmut	Penzberg		DE	
Kirschbaum, Thomas	Munich		DE	

US-CL-CURRENT: 435/69.1; 435/254.2, 435/254.23, 435/483

ABSTRACT:

The invention concerns a method for the expression of a gene coding for a soluble proteinase K in yeast e.g. in *Pichia pastoris* with subsequent secretion into the culture medium. In addition a method for purifying the heterologously expressed and secreted proteinase K is described.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 4. Document ID: US 20040043469 A1

L21: Entry 4 of 23

File: PGPB

Mar 4, 2004

PGPUB-DOCUMENT-NUMBER: 20040043469

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040043469 A1

TITLE: Dipeptidyl peptidase i crystal structure and its uses

PUBLICATION-DATE: March 4, 2004

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Olsen, Johan Gotthardt	Copenhagen N		DK	
Kadziola, Anders	Hellerup		DK	
Dahl, Soren Weis	Rungsted Kyst		DK	
Lauritzen, Connie	Rodovre		DK	
Larsen, Sine	Horsholm		DK	
Pedersen, John	Niva		DK	
Turk, Susan	Ljubljana		SI	
Podobnik, Marietka	Ljubljana-Polje		SI	
Stern, Igor	Ljubljana		SI	

US-CL-CURRENT: 435/226

## ABSTRACT:

The present invention relates to structural studies of dipeptidyl peptidase I (DPPI) proteins, modified dipeptidyl peptidase I (DPPI) proteins and DPPI co-complexes. Included in the present invention is a crystal of a dipeptidyl peptidase I (DPPI) and corresponding structural information obtained by X-ray crystallography from rat and human DPPI. In addition, this invention relates to methods for using structure coordinates of DPPI, mutants hereof and co-complexes, to design compounds that bind to the active site or accessory binding sites of DPPI and to design improved inhibitors of DPPI or homologues of the enzyme.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 5. Document ID: US 20040010134 A1

L21: Entry 5 of 23

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040010134

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040010134 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: January 15, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 536/23.5; 435/320.1, 435/325, 435/69.7, 530/363

## ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion



proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 6. Document ID: US 20030219875 A1

L21: Entry 6 of 23

File: PGPB

Nov 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030219875  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030219875 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 514/12, 530/362, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 7. Document ID: US 20030199043 A1

L21: Entry 7 of 23

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199043  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030199043 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David J.	Berwyn	PA	US	
Sleep, Darrell	West Bridgford	PA	GB	

Prior, Christopher P.	Rosemont	PA	US
Sadeghi, Homayoun	Doylestown	PA	US
Turner, Andrew J.	Eagleville		US

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 435/69.5, 530/351, 530/363, 536/23.5

#### ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	RWD	Draw Des
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#### ☐ 8. Document ID: US 20030176665 A1

L21: Entry 8 of 23

File: PGPB

Sep 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030176665

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030176665 A1

TITLE: Soluble complexes of target proteins and peptidyl prolyl isomerase chaperones and methods of making and using them

PUBLICATION-DATE: September 18, 2003

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Scholz, Christian	Penzberg		DE	
Andres, Herbert	Penzberg		DE	
Faatz, Elke	Huglfing		DE	
Engel, Alfred	Tutzing		DE	
Sizmann, Dorothea	Penzberg		DE	

US-CL-CURRENT: 530/395; 435/68.1

#### ABSTRACT:

The present invention relates to the diagnosis of HIV infections. It especially teaches the production of a soluble retroviral surface glycoprotein- (or transmembrane glycoprotein)-chaperone complex and the advantageous use of a chaperone-antigen complex especially in the detection of antibodies to HIV in immunoassays, preferably according to the double antigen bridge concept, or as an immunogen. The invention also discloses soluble complexes comprising a variant of HIV-1 gp41 or a variant of HIV-2 gp36, respectively, and a chaperone selected from the peptidyl-prolyl-isomerase class of chaperones. Variants comprising specific amino-acid substitutions in the N-helical domain of HIV-1 gp41 or of HIV-2 gp36, respectively, are also described.

☐ 9. Document ID: US 20030171267 A1

L21: Entry 9 of 23

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171267  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030171267 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Sadeghi, Homayoun	Doylestown	PA	US	
Prior, Christopher P.	Rosemont	PA	US	
Turner, Andrew J.	Eagleville	PA	US	

US-CL-CURRENT: 514/12; 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

☐ 10. Document ID: US 20030125247 A1

L21: Entry 10 of 23

File: PGPB

Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030125247  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030125247 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

## ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 11. Document ID: US 20030119038 A1

L21: Entry 11 of 23

File: PGPB

Jun 26, 2003

PGPUB-DOCUMENT-NUMBER: 20030119038

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030119038 A1

TITLE: NARC1, novel subtilase-like homologs

PUBLICATION-DATE: June 26, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bingham, Brendan William	Newtown	PA	US	
Chiang, Lillian Wei-Ming	Princeton	NJ	US	
Jenkins, Lorayne P.	Hightstown	NJ	US	
Frederick Lo, Ching-Hsiung	Pennington	NJ	US	
Naureckiene, Saule	Old Bridge	NJ	US	
Ozenberger, Bradley Alton	Newtown	PA	US	
Wood, Andrew	Newtown	PA	US	

US-CL-CURRENT: 435/6; 435/184, 435/320.1, 435/325, 435/69.2, 435/7.23, 536/23.2

## ABSTRACT:

The present invention relates to a newly identified human and mouse programmed cell death (PCD) protein having homology to mammalian subtilases. The invention also relates to polynucleotides encoding the protein. The invention further relates to methods using the polypeptides and polynucleotides as a target for diagnosis and treatment in disorders mediated by or related to the protein. The invention further relates to drug-screening methods using the polypeptides and polynucleotides to identify agonists and antagonists for diagnosis and treatment. The invention further encompasses agonists and antagonists based on the polypeptides and polynucleotides. The invention further relates to procedures for producing the polypeptides and polynucleotides.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 12. Document ID: US 20030104578 A1

L21: Entry 12 of 23

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104578  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030104578 A1

TITLE: Recombinant fusion proteins to growth hormone and serum albumin ,

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David James	Nottingham		GB	

US-CL-CURRENT: 435/69.4; 435/320.1, 435/325, 530/399, 536/23.5

ABSTRACT:

Fusion proteins of albumin and growth hormone, or fusions of variants of either, are secreted well in yeast and have increased serum and storage stability.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 13. Document ID: US 20020193564 A1

L21: Entry 13 of 23

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020193564  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020193564 A1

TITLE: Oligomeric chaperone proteins

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Fergal Conan	Les Martres de Veyre		FR	
Chatellier, Jean	Les Martres de Veyre		FR	
Fersht, Alan Roy	Cambridge		GB	

US-CL-CURRENT: 530/350; 435/235.1

ABSTRACT:

The invention relates to a polypeptide monomer capable of oligomerisation, said monomer comprising a polypeptide which potentiates protein folding inserted into the sequence of a subunit of an oligomerisable protein scaffold.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 14. Document ID: US 20020164712 A1

L21: Entry 14 of 23

File: PGPB

Nov 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020164712  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020164712 A1

TITLE: Chimeric protein containing an intramolecular chaperone-like sequence

PUBLICATION-DATE: November 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gan, Zhong-Ru	Tonghua City		CN	

US-CL-CURRENT: 435/69.4; 435/226, 435/320.1, 435/325, 530/303, 536/23.2

ABSTRACT:

The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	EMC	Draw Des
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☐ 15. Document ID: US 20020137118 A1

L21: Entry 15 of 23

File: PGPB

Sep 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020137118  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020137118 A1

TITLE: Biologically active protein folding intermediates

PUBLICATION-DATE: September 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Inouye, Masayori	Piscataway	NJ	US	
Shinde, Ujwal	Gladstone	OR	US	
Fu, Xuan	Piscataway	NJ	US	

US-CL-CURRENT: 435/23; 435/68.1

ABSTRACT:

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

This invention provides biologically active protein folding intermediates and methods of making and using the same.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 16. Document ID: US 6709814 B1

L21: Entry 16 of 23

File: USPT

Mar 23, 2004

US-PAT-NO: 6709814

DOCUMENT-IDENTIFIER: US 6709814 B1

TITLE: Peptides causing formation of compact structures

DATE-ISSUED: March 23, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; David	San Bruno	CA		
Gururaja; Tarikere	Sunnyvale	CA		

US-CL-CURRENT: 435/6; 435/320.1, 435/7.1

ABSTRACT:

The present invention is directed to compositions and methods including peptides which have a high affinity for each other and, when linked to a protein, are used to help fold the protein into a compact structure. By virtue of its stability and constraints, this scaffold can prolong the activity of any embedded protein sequences in the presence of cellular and other proteases. The compact structure can have other functional sequences embedded, and is preferable to linear and less constrained peptides for library screening, for creating structurally-biased peptide libraries and for targeting to specific intracellular and extracellular compartments. Compositions of the present invention can be displayed on the surface of viruses, archaeobacteria, prokaryotic and eukaryotic cells for library screening, drug screening and display. Methods of the present invention are useful for screening in vivo for intracellular effector proteins modulating signaling pathways and to identify interacting proteins in vitro. Thus, the present invention is useful as a scaffold for gene therapy, for the isolation of new therapeutic drug leads and for potential use as a therapeutic in physiological fluids.

14 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Referen	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 17. Document ID: US 5719021 A

L21: Entry 17 of 23

File: USPT

Feb 17, 1998

US-PAT-NO: 5719021

DOCUMENT-IDENTIFIER: US 5719021 A

TITLE: Protein activation

DATE-ISSUED: February 17, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Inouye; Masayori	Bridgewater	NJ		

US-CL-CURRENT: 435/6

ABSTRACT:

A method is disclosed for producing a biochemically active polypeptide from a biochemically inactive polypeptide. The polypeptide is normally but need not be expressed in a precursor form containing a pro-sequence. The inactive polypeptide is reacted with a tailor-made activating peptide. The activating peptide can be synthetic or made by recombinant DNA procedure. The activating peptide is a peptide which contains one or more functional domains which are necessary for folding the inactive polypeptide into a biochemically active conformation. The activating peptide may but need not contain a sequence of amino acids which is identical to the sequence of the natural occurring pro-sequence of the polypeptide. Also, a method is disclosed which permits to identify the one or more functional domains in the pro-sequence of a polypeptide which contribute(s) to the folding of the inactive polypeptide into a biochemically active conformation. The invention relates also to a tailor-made activating peptide (synthetic or by recombinant DNA) and to the biochemically active polypeptide. The protein activation method and the biochemically active proteins are of major utility in their broad applications.

23 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Referen				Claims	KMMC	Draw Des
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☐ 18. Document ID: US 5688651 A

L21: Entry 18 of 23

File: USPT

Nov 18, 1997

US-PAT-NO: 5688651

DOCUMENT-IDENTIFIER: US 5688651 A

TITLE: Prevention of protein aggregation

DATE-ISSUED: November 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Solomon; Beka	Herzlya			IL

US-CL-CURRENT: 435/7.1; 424/130.1, 436/63, 530/388.1

ABSTRACT:

A method of selecting anti-aggregation molecules with chaperone-like activity that have characteristics including binding to a native target molecule epitope with a high binding constant and are non-inhibitory to the biological activity of the target



molecule. The method molecules denaturing a target molecule in the presence of presumptive antiaggregation molecules to prevent the target molecules from self-or induced-aggregation. The nonaggregated target molecule coupled to the anti-aggregation molecule is then tested for bioactivity.

4 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Referen			Claims	RMIC	Draw. Des.
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☐ 19. Document ID: WO 2004078773 A1

L21: Entry 19 of 23

File: EPAB

Sep 16, 2004

PUB-NO: WO2004078773A1

DOCUMENT-IDENTIFIER: WO 2004078773 A1

TITLE: STABILIZING PROTEINS FOR USE IN PERSONAL CARE, COSMETIC, AND PHARMACEUTICAL PRODUCTS

PUBN-DATE: September 16, 2004

INVENTOR-INFORMATION:

NAME

COUNTRY

SHINDE, UJWAL P

US

SUBBIAN, EZHILKANI

US

YABUTA, YUKIHIRO

US

INT-CL (IPC): C07 H 21/04; C12 N 9/64; C12 P 21/02; C12 N 5/06

EUR-CL (EPC): C12N009/56

ABSTRACT:

CHG DATE=20040928 STATUS=O>Several secreted proteases (Figure 5) are produced with dedicated single-turnover intramolecular chaperones (IMC) or propeptides. Protease maturation necessitates IMCs to switch from a chaperone to a protease inhibitor and subsequently into a proteolytic substrate. The present invention provides compositions and methods using environmental signals to modulate the stochastic behavior associated with the inhibitor-substrate switch between infinitely probabilistic and precisely deterministic temporal events. This provides a unique biological switch that enable proteases to function as biochemical regulators through modulation of conformational entropy of their cognate IMCs. The present invention provides compositions comprising proteases that are stabilized as inactive proteases, but that can yet be rapidly activated by external signals (Figure 4).

Full	Title	Citation	Front	Review	Classification	Date	Referen			Claims	RMIC	Draw. Des.
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☐ 20. Document ID: WO 9950302 A1

L21: Entry 20 of 23

File: EPAB

Oct 7, 1999

PUB-NO: WO009950302A1

DOCUMENT-IDENTIFIER: WO 9950302 A1

TITLE: CHIMERIC PROTEIN CONTAINING AN INTRAMOLECULAR CHAPERONE-LIKE SEQUENCE AND ITS APPLICATION TO INSULIN PRODUCTION

PUBN-DATE: October 7, 1999

INVENTOR-INFORMATION:

NAME

COUNTRY

GAN, ZHONGRU

CN

INT-CL (IPC): C07 K 19/00; C07 K 14/62; C07 K 14/61; C12 N 15/62; C12 N 1/21  
EUR-CL (EPC): C07K001/113; C07K014/47, C07K014/61 , C07K014/62

ABSTRACT:

CHG DATE=19991102 STATUS=O>The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Abstract	Claims	Summary	Draw Des
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☐ 21. Document ID: WO 2004078773 A1

L21: Entry 21 of 23

File: DWPI

Sep 16, 2004

DERWENT-ACC-NO: 2004-662400

DERWENT-WEEK: 200464

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TITLE: Activatable protease-containing composition useful in preparation of oral care formulation, has pro-subtilisin protease with N-terminal propeptide suitable as intramolecular chaperone, and subtilisin protease with N-terminal propeptide

INVENTOR: SHINDE, U P; SUBBIAN, E ; YABUTA, Y

PRIORITY-DATA: 2003US-451883P (March 3, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 2004078773 A1</u>	September 16, 2004	E	042	C07H021/04

INT-CL (IPC): C07 H 21/04; C12 N 5/06; C12 N 9/64; C12 P 21/02

ABSTRACTED-PUB-NO: WO2004078773A

BASIC-ABSTRACT:

NOVELTY - An activatable protease-containing composition (I) has one of a pro-subtilisin protease having N-terminal propeptide suitable as intramolecular chaperone (IMC), and subtilisin protease non-covalently loaded with N-terminal propeptide

suitable as IMC, where protease are inactive, or substantially so, and (I) contains stabilizing agent and sequestered activator sufficient to rapidly activate inactive protease upon triggered release of activator.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a detergent formulation, dishwashing formulation, contact lens cleaning formulation, oral care formulation and skin care or cosmetics formulation, comprising (I); and

(2) manufacturing (I) having a prolonged protease shelf-life, comprising:

(a) obtaining the composition comprising one of a pro-subtilisin protease having an N-terminal propeptide that is IMC, and a subtilisin protease that is non-covalently loaded with an N-terminal propeptide suitable as IMC, where the protease are inactive, or substantially inactive;

(b) adding a stabilizing agent to the composition; and

(c) adding a sequestered activator sufficient to rapidly activate the inactive protease upon triggered release of the activator, to the composition and stabilizing agent, thus the protease shelf-life is prolonged in a state that is activatable upon demand by triggered release of the sequestered activator.

USE - (I) is useful for activating, upon demand, an inactive subtilisin protease, which involves obtaining (I), and triggering the activator. (I) is useful in preparation of detergent formulation, dishwashing formulation, contact lens cleaning formulation, oral care formulation, and skin care or cosmetics formulation (claimed). (I) is useful in preparation of personal care, cosmetic, therapeutic and pharmaceutical compositions (e.g., compositions for topical application). (I) is useful in the method of stabilizing proteins. (I) is useful for modulating the structural and proteolytic stability of proteases (e.g., subtilisins) through changes in the environment surrounding the precursor (e.g., prosubtilisin), for stabilizing the protein in a catalytically inactive state.

ADVANTAGE - (I) maintains proteases in an inactive state, which can be rapidly activated upon demand through an external signal. In (I), the proteolytic activity of the enzyme is stabilized against deterioration (e.g., denaturation or degradation of the enzyme molecule). (I) comprise stabilized proteases having an extended shelf-life.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Abstract	Figures	Claims	Keywords	Draw Des
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☐ 22. Document ID: US 20020137118 A1

L21: Entry 22 of 23

File: DWPI

Sep 26, 2002

DERWENT-ACC-NO: 2003-102383

DERWENT-WEEK: 200309

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TITLE: Preparation of biologically-active intermediate of folding protein, by contacting folding protein intermediate with substrate or reducing agent

INVENTOR: FU, X; INOUE, M ; SHINDE, U

PRIORITY-DATA: 2000US-227468P (August 24, 2000), 2001US-0935744 (August 24, 2001)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.22&ref=21&dbname=PGPB,USPT,U...> 2/22/05

INT-CL (IPC): C12 P 21/06; C12 Q 1/37

ABSTRACTED-PUB-NO: US20020137118A  
BASIC-ABSTRACT:

NOVELTY - Biologically-active intermediate (I) of folding protein prepared by contacting an intermediate of folding protein with a substrate or reducing agent, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a drug design assay comprising assessing a drug candidate's ability to stabilize or prevent formation of biologically-active intermediate of a folding protein.

USE - (I) is useful for preparing a biologically-active intermediate of folding protein (claimed).

DESCRIPTION OF DRAWING(S) - The figure is an X-ray crystallography image of intramolecular chaperone-subtilisin complex.

Full	Title	Citation	Front	Review	Classification	Date	Referen	Claims	FIGS	Draw. Des.
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☐ 23. Document ID: RU 2238951 C2, WO 9950302 A1, AU 9867164 A, BR 9815788 A, EP 1066328 A1, CN 1291199 A, KR 2001042383 A, US 20020164712 A1, AU 765574 B, JP 2004505601 W, MX 2000009564 A1

L21: Entry 23 of 23

File: DWPI

Oct 27, 2004

DERWENT-ACC-NO: 1999-610839  
DERWENT-WEEK: 200476  
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TITLE: New chimeric proteins containing human growth hormone fragment, used particularly for the production of human insulin

INVENTOR: GAN, Z

PRIORITY-DATA: 1998WO-CN00052 (March 31, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RU 2238951 C2	October 27, 2004		000	C07K019/00
WO 9950302 A1	October 7, 1999	E	045	C07K019/00
AU 9867164 A	October 18, 1999		000	C07K019/00
BR 9815788 A	November 28, 2000		000	C07K019/00
EP 1066328 A1	January 10, 2001	E	000	C07K019/00
CN 1291199 A	April 11, 2001		000	C07K019/00
KR 2001042383 A	May 25, 2001		000	C07K019/00
US 20020164712 A1	November 7, 2002		000	C07H021/04
AU 765574 B	September 25, 2003		000	C07K019/00
JP 2004505601 W	February 26, 2004		076	C12N015/09
MX 2000009564 A1	March 1, 2004		000	C07K014/61

INT-CL (IPC): C07 H 21/04; C07 K 14/61; C07 K 14/62; C07 K 19/00; C12 N 1/15; C12 N

1/19; C12 N 1/21; C12 N 1:21; C12 N 5/06; C12 N 5/10; C12 N 9/64; C12 N 15/09; C12 N 15/62; C12 P 21/02; C12 R 1/19; C12 R 1:19; G01 N 33/68; C12 N 1/21; C12 R 1:19

ABSTRACTED-PUB-NO: WO 9950302A  
BASIC-ABSTRACT:

NOVELTY - New chimeric proteins contain an N-terminal fragment of human growth hormone which acts as an intramolecular chaperone.

DETAILED DESCRIPTION - (A) A novel chimeric protein comprises, from N-terminus to C-terminus:

(a) a first peptidyl fragment consisting of an amino acid sequence that has at least 40% identity to a domain containing at least the first 20 N-terminal amino acids of human growth hormone (hGH) protein, in which the percentage identity is determined over an amino acid sequence of identical size to the domain of hGH;

(b) an Arg residue, or a Lys residue, or a second peptidyl fragment consisting of at least 2 amino acids in which peptidyl fragment the most C-terminal amino acid residue is an Arg or a Lys residue, and

(c) a third peptidyl fragment consisting of an amino acid sequence containing more than 2 cysteine residues, which peptidyl fragment is not a portion of hGH protein.

INDEPENDENT CLAIMS are also included for the following:

(1) a chimeric protein consisting of an amino acid sequence (I) or (II) of 107 or 150 amino acids, respectively (sequences are given in the specification);

(2) an isolated nucleic acid comprising a nucleotide sequence (NS) encoding a chimeric protein as in (A);

(3) an isolated nucleic acid comprising a NS encoding a chimeric protein as in (1);

(4) an isolated nucleic acid comprising a NS complementary to a NS as in (2);

(5) an isolated nucleic acid hybridizable to a NS encoding the first, second and third peptidyl fragments of DNA as in (2);

(6) a recombinant cell containing nucleic acid as in (2) or (3);

(7) a process for obtaining a correctly folded first insulin-precursor-containing chimeric protein (IPCCP), comprising contacting an incorrectly folded second IPCCP, which second IPCCP consists of an intramolecular chaperone (IMC) like peptidyl fragment separated from the insulin precursor by one or more cleavable amino acid residues, with at least one chaotropic auxiliary agent in an aqueous medium, where the IMC like peptidyl fragment:

(a) contains 20 to 200 amino acid residues;

(b) is not the insulin precursor or a portion; and

(c) improves the insulin precursor folding such that the yield of the correctly folded first IPCCP when the incorrectly folded second IPCCP is contacted with the chaotropic auxiliary agent is higher than the yield of the correctly folded insulin precursor when the incorrectly folded insulin precursor, which does not contain the IMC like peptidyl fragment, is contacted with the same chaotropic auxiliary agent, and

(8) an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor, comprising:

(a) changing the amino acid sequence of the first peptidyl fragment of the chimeric

protein as in (A), obtaining the chimeric protein with the changes, contacting the chimeric protein with the changes with at least one chaotropic auxiliary agent in an aqueous medium under conditions such that the chimeric protein folds correctly, and measuring the folding yield of the chimeric protein with the changes;

(b) obtaining the same chimeric protein used in (a), but without any amino acid sequence changes as in (a), contacting the chimeric protein without any amino acid sequence changes as in (a) with at least one chaotropic auxiliary agent in an aqueous medium under the same conditions as in (a), and measuring the folding yield of the chimeric protein, and

(c) comparing the folding yield of the chimeric proteins measured in (a) and (b) respectively; in which a yield measured in (a) that equals or is greater than the yield measured in (b) indicates that the amino acid sequence improves folding of the insulin precursor.

USE - The hGH sequences are used as IMC sequences, particularly for the production of human insulin.

ADVANTAGE - The methods can provide human insulin with correctly linked cysteine bridges with fewer necessary procedural steps, and hence resulting higher yield of human insulin. The IMC sequences not only protect insulin sequences from intracellular degradation by a microorganism host, but also promote the folding of the fused insulin precursor, facilitate the solubility of the fusion protein and decrease the intermolecular interactions among the fusion proteins, thus allowing folding of the fused insulin precursor at a commercially significant high concentration, eliminate the procedural steps of cyanogen bromide cleavage, oxidative sulfitolysis and the related purification steps, and eliminate the use of high concentration of mercaptan or the use of hydrophobic absorbent resins.

Full	Title	Citation	Front	Review	Classification	Date	Refer	Claims	KWIC	Draw Des
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Terms	Documents
intramolecular chaperone	23

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[Previous Page](#)

[Next Page](#)

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# Hit List

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Search Results - Record(s) 1 through 16 of 16 returned.

☐ 1. Document ID: US 20050037022 A1

Using default format because multiple data bases are involved.

L22: Entry 1 of 16

File: PGPB

Feb 17, 2005

PGPUB-DOCUMENT-NUMBER: 20050037022

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050037022 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: February 17, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [424/192.1](#); [435/320.1](#), [435/325](#), [435/69.7](#), [530/363](#), [536/23.5](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw Des
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☐ 2. Document ID: US 20040171123 A1

L22: Entry 2 of 16

File: PGPB

Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040171123

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040171123 A1

TITLE: ALBUMIN FUSION PROTEINS

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [435/69.7](#); [424/192.1](#), [435/252.3](#), [435/325](#), [536/23.4](#)

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.23&ref=22&dbname=PGPB,USPT,U...> 2/22/05

these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 3. Document ID: US 20040010134 A1

L22: Entry 3 of 16

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040010134  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040010134 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 536/23.5; 435/320.1, 435/325, 435/69.7, 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 4. Document ID: US 20030219875 A1

L22: Entry 4 of 16

File: PGPB

Nov 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030219875  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030219875 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:



NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 514/12, 530/362, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw. Des.
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☐ 5. Document ID: US 20030199043 A1

L22: Entry 5 of 16

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199043

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030199043 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David J.	Berwyn	PA	US	
Sleep, Darrell	West Bridgford	PA	GB	
Prior, Christopher P.	Rosemont	PA	US	
Sadeghi, Homayoun	Doylestown	PA	US	
Turner, Andrew J.	Eagleville		US	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 435/69.5, 530/351, 530/363, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw. Des.
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☐ 6. Document ID: US 20030176665 A1

L22: Entry 6 of 16

File: PGPB

Sep 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030176665  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030176665 A1

TITLE: Soluble complexes of target proteins and peptidyl prolyl isomerase chaperones and methods of making and using them

PUBLICATION-DATE: September 18, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Scholz, Christian	Penzberg		DE	
Andres, Herbert	Penzberg		DE	
Faatz, Elke	Huglfing		DE	
Engel, Alfred	Tutzing		DE	
Sizmann, Dorothea	Penzberg		DE	

US-CL-CURRENT: 530/395; 435/68.1

ABSTRACT:

The present invention relates to the diagnosis of HIV infections. It especially teaches the production of a soluble retroviral surface glycoprotein- (or transmembrane glycoprotein)-chaperone complex and the advantageous use of a chaperone-antigen complex especially in the detection of antibodies to HIV in immunoassays, preferably according to the double antigen bridge concept, or as an immunogen. The invention also discloses soluble complexes comprising a variant of HIV-1 gp41 or a variant of HIV-2 gp36, respectively, and a chaperone selected from the peptidyl-prolyl-isomerase class of chaperones. Variants comprising specific amino-acid substitutions in the N-helical domain of HIV-1 gp41 or of HIV-2 gp36, respectively, are also described.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Des
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☐ 7. Document ID: US 20030171267 A1

L22: Entry 7 of 16

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171267  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030171267 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	

Sadeghi, Homayoun	Doylestown	PA	US
Prior, Christopher P.	Rosemont	PA	US
Turner, Andrew J.	Eagleville	PA	US

US-CL-CURRENT: 514/12; 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw. Desc
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☐ 8. Document ID: US 20030125247 A1

L22: Entry 8 of 16

File: PGPB

Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030125247

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030125247 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 514/12; 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw. Desc
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☐ 9. Document ID: US 20030119038 A1

PGPUB-DOCUMENT-NUMBER: 20030119038  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030119038 A1

TITLE: NARCl, novel subtilase-like homologs

PUBLICATION-DATE: June 26, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bingham, Brendan William	Newtown	PA	US	
Chiang, Lillian Wei-Ming	Princeton	NJ	US	
Jenkins, Lorayne P.	Hightstown	NJ	US	
Frederick Lo, Ching-Hsiung	Pennington	NJ	US	
Naureckiene, Saule	Old Bridge	NJ	US	
Ozenberger, Bradley Alton	Newtown	PA	US	
Wood, Andrew	Newtown	PA	US	

US-CL-CURRENT: 435/6; 435/184, 435/320.1, 435/325, 435/69.2, 435/7.23, 536/23.2

ABSTRACT:

The present invention relates to a newly identified human and mouse programmed cell death (PCD) protein having homology to mammalian subtilases. The invention also relates to polynucleotides encoding the protein. The invention further relates to methods using the polypeptides and polynucleotides as a target for diagnosis and treatment in disorders mediated by or related to the protein. The invention further relates to drug-screening methods using the polypeptides and polynucleotides to identify agonists and antagonists for diagnosis and treatment. The invention further encompasses agonists and antagonists based on the polypeptides and polynucleotides. The invention further relates to procedures for producing the polypeptides and polynucleotides.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	WWW	Draw Des
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☐ 10. Document ID: US 20030104578 A1

L22: Entry 10 of 16

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104578  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030104578 A1

TITLE: Recombinant fusion proteins to growth hormone and serum albumin

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David James	Nottingham		GB	

US-CL-CURRENT: 435/69.4; 435/320.1, 435/325, 530/399, 536/23.5

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.23&ref=22&dbname=PGPB,USPT,U...> 2/22/05

ABSTRACT:

Fusion proteins of albumin and growth hormone, or fusions of variants of either, are secreted well in yeast and have increased serum and storage stability.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 11. Document ID: US 20020193564 A1

L22: Entry 11 of 16

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020193564

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020193564 A1

TITLE: Oligomeric chaperone proteins

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Fergal Conan	Les Martres de Veyre		FR	
Chatellier, Jean	Les Martres de Veyre		FR	
Fersht, Alan Roy	Cambridge		GB	

US-CL-CURRENT: 530/350; 435/235.1

ABSTRACT:

The invention relates to a polypeptide monomer capable of oligomerisation, said monomer comprising a polypeptide which potentiates protein folding inserted into the sequence of a subunit of an oligomerisable protein scaffold.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 12. Document ID: US 20020164712 A1

L22: Entry 12 of 16

File: PGPB

Nov 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020164712

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020164712 A1

TITLE: Chimeric protein containing an intramolecular chaperone-like sequence

PUBLICATION-DATE: November 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gan, Zhong-Ru	Tonghua City		CN	

US-CL-CURRENT: 435/69.4; 435/226, 435/320.1, 435/325, 530/303, 536/23.2

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.23&ref=22&dbname=PGPB,USPT,U...> 2/22/05

ABSTRACT:

The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw. Des.
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☐ 13. Document ID: US 6709814 B1

L22: Entry 13 of 16

File: USPT

Mar 23, 2004

US-PAT-NO: 6709814

DOCUMENT-IDENTIFIER: US 6709814 B1

TITLE: Peptides causing formation of compact structures

DATE-ISSUED: March 23, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; David	San Bruno	CA		
Gururaja; Tarikere	Sunnyvale	CA		

US-CL-CURRENT: 435/6; 435/320.1, 435/7.1

ABSTRACT:

The present invention is directed to compositions and methods including peptides which have a high affinity for each other and, when linked to a protein, are used to help fold the protein into a compact structure. By virtue of its stability and constraints, this scaffold can prolong the activity of any embedded protein sequences in the presence of cellular and other proteases. The compact structure can have other functional sequences embedded, and is preferable to linear and less constrained peptides for library screening, for creating structurally-biased peptide libraries and for targeting to specific intracellular and extracellular compartments. Compositions of the present invention can be displayed on the surface of viruses, archaeobacteria, prokaryotic and eukaryotic cells for library screening, drug... screening and display. Methods of the present invention are useful for screening in vivo for intracellular effector proteins modulating signaling pathways and to identify interacting proteins in vitro. Thus, the present invention is useful as a scaffold for gene therapy, for the isolation of new therapeutic drug leads and for potential use as a therapeutic in physiological fluids.

14 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw. Des.
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☐ 14. Document ID: US 5719021 A

L22: Entry 14 of 16

File: USPT

Feb 17, 1998

US-PAT-NO: 5719021

DOCUMENT-IDENTIFIER: US 5719021 A

TITLE: Protein activation

DATE-ISSUED: February 17, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Inouye; Masayori	Bridgewater	NJ		

US-CL-CURRENT: 435/6

ABSTRACT:

A method is disclosed for producing a biochemically active polypeptide from a biochemically inactive polypeptide. The polypeptide is normally but need not be expressed in a precursor form containing a pro-sequence. The inactive polypeptide is reacted with a tailor-made activating peptide. The activating peptide can be synthetic or made by recombinant DNA procedure. The activating peptide is a peptide which contains one or more functional domains which are necessary for folding the inactive polypeptide into a biochemically active conformation. The activating peptide may but need not contain a sequence of amino acids which is identical to the sequence of the natural occurring pro-sequence of the polypeptide. Also, a method is disclosed which permits to identify the one or more functional domains in the pro-sequence of a polypeptide which contribute(s) to the folding of the inactive polypeptide into a biochemically active conformation. The invention relates also to a tailor-made activating peptide (synthetic or by recombinant DNA) and to the biochemically active polypeptide. The protein activation method and the biochemically active proteins are of major utility in their broad applications.

23 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 15. Document ID: WO 9950302 A1

L22: Entry 15 of 16

File: EPAB

Oct 7, 1999

PUB-NO: WO009950302A1

DOCUMENT-IDENTIFIER: WO 9950302 A1

TITLE: CHIMERIC PROTEIN CONTAINING AN INTRAMOLECULAR CHAPERONE-LIKE SEQUENCE AND ITS APPLICATION TO INSULIN PRODUCTION

PUBN-DATE: October 7, 1999

INVENTOR-INFORMATION:

NAME	COUNTRY
GAN, ZHONGRU	CN

INT-CL (IPC): C07 K 19/00; C07 K 14/62; C07 K 14/61; C12 N 15/62; C12 N 1/21  
EUR-CL (EPC): C07K001/113; C07K014/47, C07K014/61 , C07K014/62

ABSTRACT:

CHG DATE=19991102 STATUS=O>The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWIC	Draw Des
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□ 16. Document ID: RU 2238951 C2, WO 9950302 A1, AU 9867164 A, BR 9815788 A, EP 1066328 A1, CN 1291199 A, KR 2001042383 A, US 20020164712 A1, AU 765574 B, JP 2004505601 W, MX 2000009564 A1

L22: Entry 16 of 16

File: DWPI

Oct 27, 2004

DERWENT-ACC-NO: 1999-610839

DERWENT-WEEK: 200476

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TITLE: New chimeric proteins containing human growth hormone fragment, used particularly for the production of human insulin.

INVENTOR: GAN, Z

PRIORITY-DATA: 1998WO-CN00052 (March 31, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>RU 2238951 C2</u>	October 27, 2004		000	C07K019/00
<u>WO 9950302 A1</u>	October 7, 1999	E	045	C07K019/00
<u>AU 9867164 A</u>	October 18, 1999		000	C07K019/00
<u>BR 9815788 A</u>	November 28, 2000		000	C07K019/00
<u>EP 1066328 A1</u>	January 10, 2001	E	000	C07K019/00
<u>CN 1291199 A</u>	April 11, 2001		000	C07K019/00
<u>KR 2001042383 A</u>	May 25, 2001		000	C07K019/00
<u>US 20020164712 A1</u>	November 7, 2002		000	C07H021/04
<u>AU 765574 B</u>	September 25, 2003		000	C07K019/00
<u>JP 2004505601 W</u>	February 26, 2004		076	C12N015/09
<u>MX 2000009564 A1</u>	March 1, 2004		000	C07K014/61

INT-CL (IPC): C07 H 21/04; C07 K 14/61; C07 K 14/62; C07 K 19/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 1:21; C12 N 5/06; C12 N 5/10; C12 N 9/64; C12 N 15/09; C12 N 15/62; C12 P 21/02; C12 R 1/19; C12 R 1:19; G01 N 33/68; C12 N 1/21; C12 R 1:19

ABSTRACTED-PUB-NO: WO 9950302A

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.23&ref=22&dbname=PGPB,USPT,U...> 2/22/05



BASIC-ABSTRACT:

NOVELTY - New chimeric proteins contain an N-terminal fragment of human growth hormone which acts as an intramolecular chaperone.

DETAILED DESCRIPTION - (A) A novel chimeric protein comprises, from N-terminus to C-terminus:

- (a) a first peptidyl fragment consisting of an amino acid sequence that has at least 40% identity to a domain containing at least the first 20 N-terminal amino acids of human growth hormone (hGH) protein, in which the percentage identity is determined over an amino acid sequence of identical size to the domain of hGH;
- (b) an Arg residue, or a Lys residue, or a second peptidyl fragment consisting of at least 2 amino acids in which peptidyl fragment the most C-terminal amino acid residue is an Arg or a Lys residue, and
- (c) a third peptidyl fragment consisting of an amino acid sequence containing more than 2 cysteine residues, which peptidyl fragment is not a portion of hGH protein.

INDEPENDENT CLAIMS are also included for the following:

- (1) a chimeric protein consisting of an amino acid sequence (I) or (II) of 107 or 150 amino acids, respectively (sequences are given in the specification);
- (2) an isolated nucleic acid comprising a nucleotide sequence (NS) encoding a chimeric protein as in (A);
- (3) an isolated nucleic acid comprising a NS encoding a chimeric protein as in (1);
- (4) an isolated nucleic acid comprising a NS complementary to a NS as in (2);
- (5) an isolated nucleic acid hybridizable to a NS encoding the first, second and third peptidyl fragments of DNA as in (2);
- (6) a recombinant cell containing nucleic acid as in (2) or (3);
- (7) a process for obtaining a correctly folded first insulin-precursor-containing chimeric protein (IPCCP), comprising contacting an incorrectly folded second IPCCP, which second IPCCP consists of an intramolecular chaperone (IMC) like peptidyl fragment separated from the insulin precursor by one or more cleavable amino acid residues, with at least one chaotropic auxiliary agent in an aqueous medium, where the IMC like peptidyl fragment:
  - (a) contains 20 to 200 amino acid residues;
  - (b) is not the insulin precursor or a portion; and
  - (c) improves the insulin precursor folding such that the yield of the correctly folded first IPCCP when the incorrectly folded second IPCCP is contacted with the chaotropic auxiliary agent is higher than the yield of the correctly folded insulin precursor when the incorrectly folded insulin precursor, which does not contain the IMC like peptidyl fragment, is contacted with the same chaotropic auxiliary agent, and
- (8) an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor, comprising:
  - (a) changing the amino acid sequence of the first peptidyl fragment of the chimeric protein as in (A), obtaining the chimeric protein with the changes, contacting the chimeric protein with the changes with at least one chaotropic auxiliary agent in an aqueous medium under conditions such that the chimeric protein folds correctly, and measuring the folding yield of the chimeric protein with the changes;

(b) obtaining the same chimeric protein used in (a), but without any amino acid sequence changes as in (a), contacting the chimeric protein without any amino acid sequence changes as in (a) with at least one chaotrophic auxiliary agent in an aqueous medium under the same conditions as in (a), and measuring the folding yield of the chimeric protein, and

(c) comparing the folding yield of the chimeric proteins measured in (a) and (b) respectively; in which a yield measured in (a) that equals or is greater than the yield measured in (b) indicates that the amino acid sequence improves folding of the insulin precursor.

USE - The hGH sequences are used as IMC sequences, particularly for the production of human insulin.

ADVANTAGE - The methods can provide human insulin with correctly linked cysteine bridges with fewer necessary procedural steps, and hence resulting higher yield of human insulin. The IMC sequences not only protect insulin sequences from intracellular degradation by a microorganism host, but also promote the folding of the fused insulin precursor, facilitate the solubility of the fusion protein and decrease the intermolecular interactions among the fusion proteins, thus allowing folding of the fused insulin precursor at a commercially significant high concentration, eliminate the procedural steps of cyanogen bromide cleavage, oxidative sulfitolysis and the related purification steps, and eliminate the use of high concentration of mercaptan or the use of hydrophobic absorbent resins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Discovered	Claims	RMIC	Draws Des
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Terms	Documents
L21 AND insulin	16

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Search Results - Record(s) 1 through 10 of 10 returned.

☐ 1. Document ID: US 20050037022 A1

Using default format because multiple data bases are involved.

L23: Entry 1 of 10

File: PGPB

Feb 17, 2005

PGPUB-DOCUMENT-NUMBER: 20050037022

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050037022 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: February 17, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [424/192.1](#); [435/320.1](#), [435/325](#), [435/69.7](#), [530/363](#), [536/23.5](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMO	Draw Des.
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☐ 2. Document ID: US 20040171123 A1

L23: Entry 2 of 10

File: PGPB

Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040171123

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040171123 A1

TITLE: ALBUMIN FUSION PROTEINS

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: [435/69.7](#); [424/192.1](#), [435/252.3](#), [435/325](#), [536/23.4](#)

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with

these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 3. Document ID: US 20040010134 A1

L23: Entry 3 of 10

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040010134

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040010134 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 536/23.5; 435/320.1, 435/325, 435/69.7, 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 4. Document ID: US 20030219875 A1

L23: Entry 4 of 10

File: PGPB

Nov 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030219875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030219875 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 514/12, 530/362, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw. Des.
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☐ 5. Document ID: US 20030199043 A1

L23: Entry 5 of 10

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199043

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030199043 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David J.	Berwyn	PA	US	
Sleep, Darrell	West Bridgford	PA	GB	
Prior, Christopher P.	Rosemont	PA	US	
Sadeghi, Homayoun	Doylestown	PA	US	
Turner, Andrew J.	Eagleville		US	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 435/69.5, 530/351, 530/363, 536/23.5

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWMC	Draw. Des.
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☐ 6. Document ID: US 20030171267 A1

L23: Entry 6 of 10

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171267  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030171267 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Sadeghi, Homayoun	Doylestown	PA	US	
Prior, Christopher P.	Rosemont	PA	US	
Turner, Andrew J.	Eagleville	PA	US	

US-CL-CURRENT: 514/12; 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draws Des
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☐ 7. Document ID: US 20030125247 A1

L23: Entry 7 of 10

File: PGPB

Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030125247  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030125247 A1

TITLE: Albumin fusion proteins

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Haseltine, William A.	Washington	DC	US	

US-CL-CURRENT: 514/12; 530/363

ABSTRACT:

The present invention encompasses albumin fusion proteins. Nucleic acid molecules encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors containing these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Additionally the present invention encompasses pharmaceutical compositions comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 8. Document ID: US 20030104578 A1

L23: Entry 8 of 10

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104578

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030104578 A1

TITLE: Recombinant fusion proteins to growth hormone and serum albumin

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ballance, David James	Nottingham		GB	

US-CL-CURRENT: 435/69.4; 435/320.1, 435/325, 530/399, 536/23.5

ABSTRACT:

Fusion proteins of albumin and growth hormone, or fusions of variants of either, are secreted well in yeast and have increased serum and storage stability.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 9. Document ID: US 20020164712 A1

L23: Entry 9 of 10

File: PGPB

Nov 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020164712

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020164712 A1

TITLE: Chimeric protein containing an intramolecular chaperone-like sequence

PUBLICATION-DATE: November 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gan, Zhong-Ru	Tonghua City		CN	

## ABSTRACT:

The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, inter alia, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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□ 10. Document ID: RU 2238951 C2, WO 9950302 A1, AU 9867164 A, BR 9815788 A, EP 1066328 A1, CN 1291199 A, KR 2001042383 A, US 20020164712 A1, AU 765574 B, JP 2004505601 W, MX 2000009564 A1

L23: Entry 10 of 10

File: DWPI

Oct 27, 2004

DERWENT-ACC-NO: 1999-610839

DERWENT-WEEK: 200476

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TITLE: New chimeric proteins containing human growth hormone fragment, used particularly for the production of human insulin

INVENTOR: GAN, Z

PRIORITY-DATA: 1998WO-CN00052 (March 31, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>RU 2238951 C2</u>	October 27, 2004		000	C07K019/00
<u>WO 9950302 A1</u>	October 7, 1999	E	045	C07K019/00
<u>AU 9867164 A</u>	October 18, 1999		000	C07K019/00
<u>BR 9815788 A</u>	November 28, 2000		000	C07K019/00
<u>EP 1066328 A1</u>	January 10, 2001	E	000	C07K019/00
<u>CN 1291199 A</u>	April 11, 2001		000	C07K019/00
<u>KR 2001042383 A</u>	May 25, 2001		000	C07K019/00
<u>US 20020164712 A1</u>	November 7, 2002		000	C07H021/04
<u>AU 765574 B</u>	September 25, 2003		000	C07K019/00
<u>JP 2004505601 W</u>	February 26, 2004		076	C12N015/09
<u>MX 2000009564 A1</u>	March 1, 2004		000	C07K014/61

INT-CL (IPC): C07 H 21/04; C07 K 14/61; C07 K 14/62; C07 K 19/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 1:21; C12 N 5/06; C12 N 5/10; C12 N 9/64; C12 N 15/09; C12 N 15/62; C12 P 21/02; C12 R 1/19; C12 R 1:19; G01 N 33/68; C12 N 1/21; C12 R 1:19

ABSTRACTED-PUB-NO: WO 9950302A

BASIC-ABSTRACT:

NOVELTY - New chimeric proteins contain an N-terminal fragment of human growth

<http://westbrs:9000/bin/gate.exe?f=TOC&state=v6eh31.24&ref=23&dbname=PGPB,USPT,U...> 2/22/05



hormone which acts as an intramolecular chaperone.

DETAILED DESCRIPTION - (A) A novel chimeric protein comprises, from N-terminus to C-terminus:

(a) a first peptidyl fragment consisting of an amino acid sequence that has at least 40% identity to a domain containing at least the first 20 N-terminal amino acids of human growth hormone (hGH) protein, in which the percentage identity is determined over an amino acid sequence of identical size to the domain of hGH;

(b) an Arg residue, or a Lys residue, or a second peptidyl fragment consisting of at least 2 amino acids in which peptidyl fragment the most C-terminal amino acid residue is an Arg or a Lys residue, and

(c) a third peptidyl fragment consisting of an amino acid sequence containing more than 2 cysteine residues, which peptidyl fragment is not a portion of hGH protein.

INDEPENDENT CLAIMS are also included for the following:

(1) a chimeric protein consisting of an amino acid sequence (I) or (II) of 107 or 150 amino acids, respectively (sequences are given in the specification);

(2) an isolated nucleic acid comprising a nucleotide sequence (NS) encoding a chimeric protein as in (A);

(3) an isolated nucleic acid comprising a NS encoding a chimeric protein as in (1);

(4) an isolated nucleic acid comprising a NS complementary to a NS as in (2);

(5) an isolated nucleic acid hybridizable to a NS encoding the first, second and third peptidyl fragments of DNA as in (2);

(6) a recombinant cell containing nucleic acid as in (2) or (3);

(7) a process for obtaining a correctly folded first insulin-precursor-containing chimeric protein (IPCCP), comprising contacting an incorrectly folded second IPCCP, which second IPCCP consists of an intramolecular chaperone (IMC) like peptidyl fragment separated from the insulin precursor by one or more cleavable amino acid residues, with at least one chaotropic auxiliary agent in an aqueous medium, where the IMC like peptidyl fragment:

(a) contains 20 to 200 amino acid residues;

(b) is not the insulin precursor or a portion; and

(c) improves the insulin precursor folding such that the yield of the correctly folded first IPCCP when the incorrectly folded second IPCCP is contacted with the chaotropic auxiliary agent is higher than the yield of the correctly folded insulin precursor when the incorrectly folded insulin precursor, which does not contain the IMC like peptidyl fragment, is contacted with the same chaotropic auxiliary agent; and

(8) an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor, comprising:

(a) changing the amino acid sequence of the first peptidyl fragment of the chimeric protein as in (A), obtaining the chimeric protein with the changes, contacting the chimeric protein with the changes with at least one chaotropic auxiliary agent in an aqueous medium under conditions such that the chimeric protein folds correctly, and measuring the folding yield of the chimeric protein with the changes;

(b) obtaining the same chimeric protein used in (a), but without any amino acid sequence changes as in (a), contacting the chimeric protein without any amino acid

sequence changes as in (a) with at least one chaotrophic auxiliary agent in an aqueous medium under the same conditions as in (a), and measuring the folding yield of the chimeric protein, and

(c) comparing the folding yield of the chimeric proteins measured in (a) and (b) respectively; in which a yield measured in (a) that equals or is greater than the yield measured in (b) indicates that the amino acid sequence improves folding of the insulin precursor.

USE - The hGH sequences are used as IMC sequences, particularly for the production of human insulin.

ADVANTAGE - The methods can provide human insulin with correctly linked cysteine bridges with fewer necessary procedural steps, and hence resulting higher yield of human insulin. The IMC sequences not only protect insulin sequences from intracellular degradation by a microorganism host, but also promote the folding of the fused insulin precursor, facilitate the solubility of the fusion protein and decrease the intermolecular interactions among the fusion proteins, thus allowing folding of the fused insulin precursor at a commercially significant high concentration, eliminate the procedural steps of cyanogen bromide cleavage, oxidative sulfitolysis and the related purification steps, and eliminate the use of high concentration of mercaptan or the use of hydrophobic absorbent resins.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Abstract	Claims	KWIC	Draw Des
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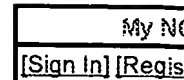
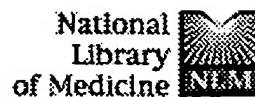
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PMID: 11542701 [PubMed - indexed for MEDLINE]

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J Clin Invest. 1995 May;95(5):2258-65.  
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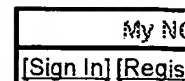
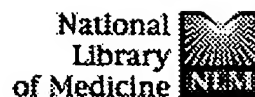
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 **Long-term recombinant porcine somatotropin (PST) treatment mitigates the responses to subchronic lipopolysaccharide in swine.**  
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 **Hyperthyroidism and production of precocious involution in the mammary glands of lactating rats.**  
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Space Med Med Eng (Beijing). 1999 Aug;12(4):235-9.  
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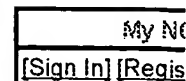
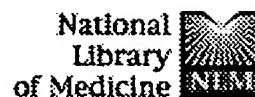
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J Cell Sci. 1997 Jan;110 ( Pt 1):65-73.

PMID: 9010785 [PubMed - indexed for MEDLINE]

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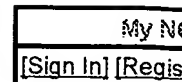
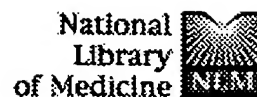
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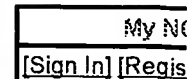
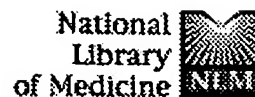
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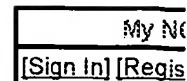
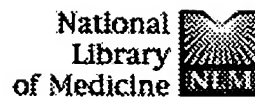
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L5 17 DUP REM L4 (2 DUPLICATES REMOVED)

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L5 ANSWER 1 OF 17 USPATFULL on STN  
AN 2005:43296 USPATFULL  
TI Albumin fusion proteins  
IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Haseltine, William A., Washington, DC, UNITED STATES  
PI US 2005037022 A1 20050217  
AI US 2004-816042 A1 20040402 (10)  
RLI Continuation of Ser. No. WO 2002-US31794, filed on 4 Oct 2002, PENDING  
PRAI US 2001-327281P 20011005 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 17090  
INCL INCLM: 424/192.100  
INCLS: 435/069.700; 435/320.100; 435/325.000; 530/363.000; 536/023.500  
NCL NCLM: 424/192.100  
NCLS: 435/069.700; 435/320.100; 435/325.000; 530/363.000; 536/023.500  
IC [7]  
ICM: A61K039-00  
ICS: C07H021-04; C12P021-04; C07K014-765

L5 ANSWER 2 OF 17 USPATFULL on STN  
AN 2004:221354 USPATFULL  
TI ALBUMIN FUSION PROTEINS  
IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Haseltine, William A., Washington, DC, UNITED STATES  
PI US 2004171123 A1 20040902  
AI US 2001-832929 A1 20010412 (9)  
DT Utility  
FS APPLICATION  
LN.CNT 17424  
INCL INCLM: 435/069.700  
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ICM: A61K038-00  
ICS: C12P021-04; A61K039-00; C07H021-04; C12N005-02; C12N005-00;  
C12N001-20



L5 ANSWER 3 OF 17 USPATFULL on STN  
 AN 2004:13611 USPATFULL  
 TI Albumin fusion proteins  
 IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
 Haseltine, William A., Washington, DC, UNITED STATES  
 PI US 2004010134 A1 20040115  
 AI US 2001-833245 A1 20010412 (9)  
 PRAI US 2000-256931P 20001221 (60)  
 US 2000-199384P 20000425 (60)  
 US 2000-229358P 20000412 (60)  
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 FS APPLICATION  
 LN.CNT 25066  
 INCL INCLM: 536/023.500  
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 ICM: C07H021-04  
 ICS: C12P021-04; C12P021-02; C07K014-765; A61K038-38  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 17 USPATFULL on STN  
 AN 2003:312278 USPATFULL  
 TI Albumin fusion proteins  
 IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
 Haseltine, William A., Washington, DC, UNITED STATES  
 PI US 2003219875 A1 20031127  
 AI US 2001-833118 A1 20010412 (9)  
 PRAI US 2000-256931P 20001221 (60)  
 US 2000-199384P 20000425 (60)  
 US 2000-229358P 20000412 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 15415  
 INCL INCLM: 435/069.700  
 INCLS: 435/325.000; 435/320.100; 530/362.000; 514/012.000; 536/023.500  
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 ICM: A61K038-38  
 ICS: C07H021-04; C12P021-04; C07K014-76  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 17 USPATFULL on STN  
 AN 2003:282700 USPATFULL  
 TI Albumin fusion proteins  
 IN Ballance, David J., Berwyn, PA, UNITED STATES  
 Sleep, Darrell, West Bridgford, UNITED KINGDOM  
 Prior, Christopher P., Rosemont, PA, UNITED STATES  
 Sadeghi, Homayoun, Doylestown, PA, UNITED STATES  
 Turner, Andrew J., Eagleville, PA, UNITED STATES  
 PI US 2003199043 A1 20031023  
 AI US 2001-832501 A1 20010412 (9)  
 PRAI US 2000-256931P 20001221 (60)  
 US 2000-199384P 20000425 (60)  
 US 2000-229358P 20000412 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 14339  
 INCL INCLM: 435/069.700  
 INCLS: 435/069.500; 435/325.000; 435/320.100; 530/351.000; 530/363.000;  
 536/023.500  
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 536/023.500  
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 ICM: C12P021-02  
 ICS: C07H021-04; C12N005-06; C07K014-76; C07K014-52  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 6 OF 17 USPATFULL on STN  
 AN 2003:244853 USPATFULL  
 TI Albumin fusion proteins

Sadeghi, Homayoun, Doylestown, PA, UNITED STATES  
Prior, Christopher P., Rosemont, PA, UNITED STATES  
Turner, Andrew J., Eagleville, PA, UNITED STATES  
PI US 2003171267 A1 20030911  
AI US 2001-833117 A1 20010412 (9)  
PRAI US 2000-256931P 20001221 (60)  
US 2000-199384P 20000425 (60)  
US 2000-229358P 20000412 (60)

DT Utility  
FS APPLICATION

LN.CNT 13208

INCL INCLM: 514/012.000  
INCLS: 530/363.000

NCL NCLM: 514/012.000  
NCLS: 530/363.000

IC [7]  
ICM: A61K038-38  
ICS: C07K014-765

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AN 2003:181414 USPATFULL

TI Albumin fusion proteins

IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Haseltine, William A., Washington, DC, UNITED STATES

PI US 2003125247 A1 20030703  
AI US 2001-833041 A1 20010412 (9)  
PRAI US 2000-256931P 20001221 (60)  
US 2000-199384P 20000425 (60)  
US 2000-229358P 20000412 (60)

DT Utility  
FS APPLICATION

LN.CNT 15235

INCL INCLM: 514/012.000  
INCLS: 530/363.000

NCL NCLM: 514/012.000  
NCLS: 530/363.000

IC [7]  
ICM: A61K038-38  
ICS: C07K014-765

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L5 ANSWER 8 OF 17 USPATFULL on STN

AN 2003:152912 USPATFULL

TI Recombinant fusion proteins to growth hormone and serum albumin

IN Ballance, David James, Nottingham, UNITED KINGDOM

PI US 2003104578 A1 20030605  
AI US 2001-984010 A1 20011026 (9)

RLI Continuation of Ser. No. US 1998-91873, filed on 25 Jun 1998, ABANDONED  
A 371 of International Ser. No. WO 1996-GB3164, filed on 19 Dec 1996,  
UNKNOWN

PRAI GB 1995-26733 19951230

DT Utility  
FS APPLICATION

LN.CNT 801

INCL INCLM: 435/069.400  
INCLS: 435/320.100; 435/325.000; 530/399.000; 536/023.500

NCL NCLM: 435/069.400  
NCLS: 435/320.100; 435/325.000; 530/399.000; 536/023.500

IC [7]  
ICM: C07K014-61  
ICS: C07H021-04; C12P021-02; C12N005-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 9 OF 17 IFIPAT COPYRIGHT 2005 IFI on STN DUPLICATE 1

AN 10221005 IFIPAT;IFIUDB;IFICDB

TI CHIMERIC PROTEIN CONTAINING AN \*\*\*INTRAMOLECULAR\*\*\* \*\*\*CHAPERONE\*\*\*  
-LIKE SEQUENCE; FUSION PROTEIN FOR USE IN TREATMENT OF DIABETES

IN Gan Zhong-Ru (CN)

PI US 2002164712 A1 20021107  
AI US 2002-54873 20020122

RLI WO 1998-CN52 19980331 Section 371 PCT Filing UNKNOWN  
US 2000-423100 20001211 CONTINUATION PENDING

FI US 2002164712 20021107

DT Utility; Patent Application - First Publication

APPLICATION  
CLMN 77  
GI 2 Figure(s).  
FIGS. 1A and 1B. Structure of proinsulin and mature \*\*\*insulin\*\*\* with correctly formed disulfide bridges. 1A depicts the structure of proinsulin. 1B depicts the structure of mature \*\*\*insulin\*\*\* with correctly formed disulfide bridges.  
FIG. 2. Map of the hGH-mini-proinsulin (SEQ ID NO: 6) expression vector (pZRhi-1).

L5 ANSWER 10 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
DUPLICATE 2  
AN 2000-01038 BIOTECHDS  
TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
\*\*\*hormone\*\*\* fragment, used particularly for the production of human  
\*\*\*insulin\*\*\* ;  
human \*\*\*somatotropin\*\*\* and \*\*\*insulin\*\*\* precursor fusion  
protein production

AU Gan Zhongru  
PA Tonghua-Gantech-Biotechnology  
LO Tonghua City, People's Republic of China.  
PI WO 9950302 7 Oct 1999  
AI WO 1998-CN52 31 Mar 1998  
PRAI WO 1998-CN52 31 Mar 1998  
DT Patent  
LA English  
OS WPI: 1999-610839 [52]

L5 ANSWER 11 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
AN AAY42861 protein DGENE  
TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
\*\*\*hormone\*\*\* fragment, used particularly for the production of human  
\*\*\*insulin\*\*\* -

IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]  
DESC Chimeric protein, SEQ ID 7.

L5 ANSWER 12 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
AN AAY42860 protein DGENE  
TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
\*\*\*hormone\*\*\* fragment, used particularly for the production of human  
\*\*\*insulin\*\*\* -

IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]  
DESC hGH-mini-proinsulin chimeric protein.

L5 ANSWER 13 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
AN AAY42859 protein DGENE  
TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
\*\*\*hormone\*\*\* fragment, used particularly for the production of human  
\*\*\*insulin\*\*\* -

IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]  
DESC Human \*\*\*insulin\*\*\* precursor, SEQ ID 5.

L5 ANSWER 14 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
AN AAY42858 protein DGENE

\*\*\*hormone\*\*\* fragment, used particularly for the production of human  
 \*\*\*insulin\*\*\* -

IN Gan Z  
 PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
 PI WO 9950302 A1 19991007 46p  
 AI WO 1998-CN52 19980331  
 PRAI WO 1998-CN52 19980331  
 DT Patent  
 LA English  
 OS 1999-610839 [52]  
 DESC Human \*\*\*insulin\*\*\* precursor, SEQ ID 5.

L5 ANSWER 15 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
 AN AAY42857 peptide DGENE  
 TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
 \*\*\*hormone\*\*\* fragment, used particularly for the production of human  
 \*\*\*insulin\*\*\* -

IN Gan Z  
 PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
 PI WO 9950302 A1 19991007 46p  
 AI WO 1998-CN52 19980331  
 PRAI WO 1998-CN52 19980331  
 DT Patent  
 LA English  
 OS 1999-610839 [52]  
 DESC Cleavable peptide linker for hGH-mini-proinsulin chimeric protein.

L5 ANSWER 16 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
 AN AAY42856 protein DGENE  
 TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
 \*\*\*hormone\*\*\* fragment, used particularly for the production of human  
 \*\*\*insulin\*\*\* -

IN Gan Z  
 PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
 PI WO 9950302 A1 19991007 46p  
 AI WO 1998-CN52 19980331  
 PRAI WO 1998-CN52 19980331  
 DT Patent  
 LA English  
 OS 1999-610839 [52]  
 DESC \*\*\*Human\*\*\* \*\*\*growth\*\*\* \*\*\*hormone\*\*\* (hGH) N-terminal  
 fragment #2.

L5 ANSWER 17 OF 17 DGENE COPYRIGHT 2005 The Thomson Corp on STN  
 AN AAY42855 protein DGENE  
 TI New chimeric proteins containing \*\*\*human\*\*\* \*\*\*growth\*\*\*  
 \*\*\*hormone\*\*\* fragment, used particularly for the production of human  
 \*\*\*insulin\*\*\* -

IN Gan Z  
 PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
 PI WO 9950302 A1 19991007 46p  
 AI WO 1998-CN52 19980331  
 PRAI WO 1998-CN52 19980331  
 DT Patent  
 LA English  
 OS 1999-610839 [52]  
 DESC \*\*\*Human\*\*\* \*\*\*growth\*\*\* \*\*\*hormone\*\*\* (hGH) N-terminal  
 fragment #1.

=> S L1 AND L2  
 54 FILES SEARCHED...  
 L6 47862 L1 AND L2

=> S L6 AND chaperone  
 53 FILES SEARCHED...  
 L7 276 L6 AND CHAPERONE

=> DUP REM L7  
 DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,  
 DRUGMONOG2, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, IMSRESEARCH, KOSMET,  
 MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, PROUSDDR, RDISCLOSURE, SYNTHLINE'.  
 ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE  
 PROCESSING COMPLETED FOR L7  
 L8 262 DUP REM L7 (14 DUPLICATES REMOVED)

=> D L8 1-262

L8 ANSWER 1 OF 262 USPATFULL on STN  
AN 2005:43296 USPATFULL  
TI Albumin fusion proteins  
IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Haseltine, William A., Washington, DC, UNITED STATES  
PI US 2005037022 A1 20050217  
AI US 2004-816042 A1 20040402 (10)  
RLI Continuation of Ser. No. WO 2002-US31794, filed on 4 Oct 2002, PENDING  
PRAI US 2001-327281P 20011005 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 17090  
INCL INCLM: 424/192.100  
INCLS: 435/069.700; 435/320.100; 435/325.000; 530/363.000; 536/023.500  
NCL NCLM: 424/192.100  
NCLS: 435/069.700; 435/320.100; 435/325.000; 530/363.000; 536/023.500  
IC [7]  
ICM: A61K039-00  
ICS: C07H021-04; C12P021-04; C07K014-765

L8 ANSWER 2 OF 262 USPATFULL on STN  
AN 2005:36910 USPATFULL  
TI Interleukin-2:remodeling and glycoconjugation of interleukin-2  
IN DeFrees, Shawn, North Wales, PA, UNITED STATES  
Zopf, David, Wayne, PA, UNITED STATES  
Bayer, Robert, San Diego, CA, UNITED STATES  
Bowe, Caryn, Doylestown, PA, UNITED STATES  
Hakes, David, Willow Grove, PA, UNITED STATES  
Chen, Xi, Lansdale, PA, UNITED STATES  
PA Neose Technologies, Inc. (U.S. corporation)  
PI US 2005031584 A1 20050210  
AI US 2003-410980 A1 20030409 (10)  
RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
Oct 2002, PENDING  
PRAI US 2002-407527P 20020828 (60)  
US 2002-404249P 20020816 (60)  
US 2002-396594P 20020717 (60)  
US 2002-391777P 20020625 (60)  
US 2002-387292P 20020607 (60)  
US 2001-334301P 20011128 (60)  
US 2001-334233P 20011128 (60)  
US 2001-344692P 20011019 (60)  
US 2001-328523P 20011010 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 19059  
INCL INCLM: 424/085.200  
INCLS: 530/351.000  
NCL NCLM: 424/085.200  
NCLS: 530/351.000  
IC [7]  
ICM: A61K038-20  
ICS: C07K014-54

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 262 USPATFULL on STN  
AN 2005:32018 USPATFULL  
TI Algorithmic design of peptides for binding and/or modulation of the  
functions of receptors and/or other proteins  
IN Mandell, Arnold J., Asheville, NC, UNITED STATES  
Selz, Karen A., Asheville, NC, UNITED STATES  
Shlesinger, Michael F., Rockville, MD, UNITED STATES  
PI US 2005027457 A1 20050203  
AI US 2004-777829 A1 20040211 (10)  
RLI Continuation of Ser. No. US 2001-767460, filed on 23 Jan 2001, PENDING  
Continuation-in-part of Ser. No. US 2000-490701, filed on 24 Jan 2000,  
ABANDONED  
DT Utility  
FS APPLICATION  
LN.CNT 3141

NCL INCLS: 530/350.000  
NCLM: 702/019.000  
NCLS: 530/350.000  
IC [7]  
ICM: G06F019-00  
ICS: G01N033-48; G01N033-50; C07K014-71  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 262 USPATFULL on STN  
AN 2005:11636 USPATFULL  
TI Methods and systems for identifying naturally occurring antisense transcripts and methods, kits and arrays utilizing same  
IN Levanon, Erez, Petach Tikva, ISRAEL  
Bernstein, Jeanne, Kfar Yona, ISRAEL  
Pollock, Sarah, Tel Aviv, ISRAEL  
Diber, Alex, Herzlia, ISRAEL  
Levine, Zurit, Herzlia, ISRAEL  
Nemzer, Sergey, Ramat Gan, ISRAEL  
Grebinsky, Vladimir, Highland Park, NJ, UNITED STATES  
Xie, Hanqing, Lambertville, NJ, UNITED STATES  
Meloan, Brian, Plainsboro, NJ, UNITED STATES  
Olson, Andrew, Westfield, NJ, UNITED STATES  
Dahary, Dvir, Tel Aviv, ISRAEL  
Cohen, Yossi, Woking, UNITED KINGDOM  
Shoshan, Avi, Kiryat Gat, ISRAEL  
Walach, Shira, Hod Hasharon, ISRAEL  
Wasserman, Alon, New York, NY, UNITED STATES  
Khosravi, Rami, Herzlia, ISRAEL  
Rotman, Galit, Herzlia, ISRAEL  
PI US 2005009771 A1 20050113  
AI US 2004-764503 A1 20040127 (10)  
RLI Continuation-in-part of Ser. No. US 2003-441281, filed on 20 May 2003,  
PENDING  
DT Utility  
FS APPLICATION  
LN.CNT 10385  
INCL INCLM: 514/044.000  
INCLS: 435/006.000; 702/020.000  
NCL NCLM: 514/044.000  
NCLS: 435/006.000; 702/020.000  
IC [7]  
ICM: A61K048-00  
ICS: C12Q001-68; G06F019-00; G01N033-48; G01N033-50  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 262 USPATFULL on STN  
AN 2005:4381 USPATFULL  
TI Modified antigen-presenting cells  
IN Hirano, Naoto, Brookline, MA, UNITED STATES  
Butler, Marcus, Jamaica Plain, MA, UNITED STATES  
Nadler, Lee M., Newton, MA, UNITED STATES  
PA Dana Farber Cancer Institute (U.S. corporation)  
PI US 2005003484 A1 20050106  
AI US 2004-850294 A1 20040520 (10)  
RLI Continuation-in-part of Ser. No. WO 2002-US37123, filed on 20 Nov 2002,  
PENDING  
PRAI US 2001-331928P 20011120 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 3424  
INCL INCLM: 435/069.100  
INCLS: 435/455.000; 435/325.000; 435/320.100; 530/350.000; 536/023.500  
NCL NCLM: 435/069.100  
NCLS: 435/455.000; 435/325.000; 435/320.100; 530/350.000; 536/023.500  
IC [7]  
ICM: C07K014-47  
ICS: C12N005-06; C12N015-85  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 262 EMBAL COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 1  
AN 2005046554 EMBASE Alert (EMBAL)  
TI Avoidance of oxidative-stress perturbation in yeast bioprocesses by  
proteomic and genomic biostrategies?.  
AU Wisema A.

Sciences, University of Surrey, Guildford, Surrey, GU2 7XH, United Kingdom. Helen.Wiseman@kcl.ac.uk  
 SO Letters in Applied Microbiology, (2005) 40/1 (37-43). Refs: 19.  
 CY CODEN: LAMIE ISSN: 0266-8254  
 DT United Kingdom  
 LA Article  
 SL English

L8 ANSWER 7 OF 262 USPATFULL on STN  
 AN 2004:326886 USPATFULL  
 TI Use of lectins to promote oligomerization of glycoproteins and antigenic molecules  
 IN Zabrecky, James R., Waltham, MA, UNITED STATES  
 Monks, Stephen A., Arlington, MA, UNITED STATES  
 PA Antigenics Inc. (U.S. corporation)  
 PI US 2004258705 A1 20041223  
 AI US 2004-789220 A1 20040227 (10)  
 PRAI US 2003-450721P 20030228 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 5764  
 INCL INCLM: 424/185.100  
 INCLS: 514/008.000  
 NCL NCLM: 424/185.100  
 NCLS: 514/008.000  
 IC [7]  
 ICM: A61K039-385  
 ICS: A61K039-00  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 262 USPATFULL on STN  
 AN 2004:314614 USPATFULL  
 TI Nucleic acid molecules that are differentially regulated in a bipolar disorder and uses thereof  
 IN Konradi, Christine, Chestnut Hill, MA, UNITED STATES  
 Heckers, Stephan, Chestnut Hill, MA, UNITED STATES  
 PI US 2004248286 A1 20041209  
 AI US 2004-804950 A1 20040319 (10)  
 PRAI US 2003-456873P 20030321 (60)  
 US 2003-516527P 20031030 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 3053  
 INCL INCLM: 435/287.200  
 INCLS: 435/006.000; 536/023.200  
 NCL NCLM: 435/287.200  
 NCLS: 435/006.000; 536/023.200  
 IC [7]  
 ICM: C12Q001-68  
 ICS: C07H021-04; C12M001-34  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 262 USPATFULL on STN  
 AN 2004:306480 USPATFULL  
 TI Dermal micro organs, methods and apparatuses for producing and using the same  
 IN Bellomo, Stephen F., Zichron Yaakov, ISRAEL  
 Lippin, Itzhak, Moshav Beit Yitzhak, ISRAEL  
 Piva, Guillermo Alberto, Winston Salem, NC, UNITED STATES  
 Rosenberg, Lior, Omer, ISRAEL  
 Bukhman, Mordechay, Carmiel, ISRAEL  
 Stern, Baruch S., Haifa, ISRAEL  
 Shalhevet, David, Kiryat Tivon, ISRAEL  
 Shavitt, Menachem D., Misgav, ISRAEL  
 Pearlman, Andrew L., Misgav, ISRAEL  
 Shani, Noam, Zikron Yaakov, ISRAEL  
 Almon, Einat, Timrat, ISRAEL  
 PI US 2004241148 A1 20041202  
 AI US 2004-834345 A1 20040429 (10)  
 RLI Continuation-in-part of Ser. No. WO 2002-IL877, filed on 5 Nov 2002,  
 PENDING Continuation-in-part of Ser. No. WO 2002-IL878, filed on 5 Nov  
 2002, PENDING Continuation-in-part of Ser. No. WO 2002-IL879, filed on 5  
 Nov 2002, UNKNOWN Continuation-in-part of Ser. No. WO 2002-IL880, filed  
 on 5 Nov 2002, UNKNOWN

US 2003-492754P 20030806 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 2442  
INCL INCLM: 424/093.210  
INCLS: 435/366.000  
NCL NCLM: 424/093.210  
NCLS: 435/366.000  
IC [7]  
ICM: A61K048-00  
ICS: C12N005-08

L8 ANSWER 10 OF 262 USPATFULL on STN  
AN 2004:292226 USPATFULL  
TI Methods for producing humanized antibodies and improving yield of  
antibodies or antigen binding fragments in cell culture  
IN Simmons, Laura, Burlingame, CA, UNITED STATES  
PA Genentech, Inc., South San Francisco, CA, UNITED STATES, 94080-4990  
(U.S. corporation)  
PI US 2004229310 A1 20041118  
AI US 2004-764428 A1 20040123 (10)  
PRAI US 2003-442484P 20030123 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 6255  
INCL INCLM: 435/069.100  
INCLS: 435/327.000; 435/320.100; 530/387.200; 536/023.530  
NCL NCLM: 435/069.100  
NCLS: 435/327.000; 435/320.100; 530/387.200; 536/023.530  
IC [7]  
ICM: C07H021-04  
ICS: C07K016-42; C12N005-06  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 262 USPATFULL on STN  
AN 2004:254328 USPATFULL  
TI Methods for modifying the production of a polypeptide  
IN Brody, Howard, Davis, CA, UNITED STATES  
Yaver, Debbie S., Davis, CA, UNITED STATES  
Lamsa, Michael H., Davis, CA, UNITED STATES  
Hansen, Kim, Bjaeverskov, DENMARK  
PA Novozymes Biotech, Inc., Davis, CA (U.S. corporation)  
Novozymes A/S, Bagsvaerd, DENMARK (U.S. corporation)  
PI US 2004197854 A1 20041007  
AI US 2001-845 A1 20011024 (10)  
RLI Division of Ser. No. US 1997-928692, filed on 12 Sep 1997, GRANTED, Pat.  
No. US 5958727 Continuation-in-part of Ser. No. US 1996-713312, filed on  
13 Sep 1996, ABANDONED  
DT Utility  
FS APPLICATION  
LN.CNT 6531  
INCL INCLM: 435/069.100  
INCLS: 435/320.100; 435/325.000  
NCL NCLM: 435/069.100  
NCLS: 435/320.100; 435/325.000  
IC [7]  
ICM: C12P021-02  
ICS: C12N005-06  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 12 OF 262 USPATFULL on STN  
AN 2004:221354 USPATFULL  
TI ALBUMIN FUSION PROTEINS  
IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Haseltine, William A., Washington, DC, UNITED STATES  
PI US 2004171123 A1 20040902  
AI US 2001-832929 A1 20010412 (9)  
DT Utility  
FS APPLICATION  
LN.CNT 17424  
INCL INCLM: 435/069.700  
INCLS: 424/192.100; 536/023.400; 435/252.300; 435/325.000  
NCL NCLM: 435/069.700  
NCLS: 424/192.100; 536/023.400; 435/252.300; 435/325.000  
IC [7]



ICS: C12P021-04; A61K039-00; C07H021-04; C12N005-02; C12N005-00;  
C12N001-20

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 262 USPATFULL on STN  
AN 2004:203398 USPATFULL  
TI Protein expression system  
IN Salerno, John C., Averill Park, NY, UNITED STATES  
Hanna, Michael, Averill Park, NY, UNITED STATES  
Koretz, Jane F., Slingerlands, NY, UNITED STATES  
Crone, Donna, Troy, NY, UNITED STATES  
Smith, Susan M. E., Averill Park, NY, UNITED STATES  
PI US 2004157289 A1 20040812  
AI US 2003-657740 A1 20030908 (10)  
PRAI US 2002-408680P 20020906 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 2229  
INCL INCLM: 435/069.100  
INCLS: 530/350.000; 435/320.100; 435/325.000; 536/023.500; 435/006.000  
NCL NCLM: 435/069.100  
NCLS: 530/350.000; 435/320.100; 435/325.000; 536/023.500; 435/006.000  
IC [7]

ICM: C07K014-47  
ICS: C12Q001-68; C07H021-04

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 262 USPATFULL on STN  
AN 2004:190199 USPATFULL  
TI Process for producing recombinant protein and fused protein  
IN Furutani, Masahiro, Mishima-gun, JAPAN  
Hata, Junichi, Mishima-gun, JAPAN  
Togi, Akiko, Mishima-gun, JAPAN  
PI US 2004146969 A1 20040729  
AI US 2003-451883 A1 20031016 (10)  
WO 2001-JP11438 20011226  
PRAI JP 2000-395740 20001226  
DT Utility  
FS APPLICATION  
LN.CNT 1061  
INCL INCLM: 435/069.100  
NCL NCLM: 435/069.100  
IC [7]

ICM: C12P021-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 262 USPATFULL on STN  
AN 2004:184970 USPATFULL  
TI Glycoconjugation methods and proteins/peptides produced by the methods  
IN DeFrees, Shawn, North Wales, PA, UNITED STATES  
Zopf, David, Wayne, PA, UNITED STATES  
Bayer, Robert, San Diego, CA, UNITED STATES  
Bowe, Caryn, Doylestown, PA, UNITED STATES  
Hakes, David, Willow Grove, PA, UNITED STATES  
Chen, Xi, Lansdale, PA, UNITED STATES  
PA Neose Technologies, Inc. (U.S. corporation)  
PI US 2004142856 A1 20040722  
AI US 2003-410913 A1 20030409 (10)  
RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
Oct 2002, PENDING  
PRAI US 2002-407527P 20020828 (60)  
US 2002-407527P 20020828 (60)  
US 2002-404249P 20020816 (60)  
US 2002-396594P 20020717 (60)  
US 2002-391777P 20020625 (60)  
US 2002-387292P 20020607 (60)  
US 2001-334301P 20011128 (60)  
US 2001-334233P 20011128 (60)  
US 2001-334692P 20011121 (60)  
US 2001-328523P 20011010 (60)  
DT Utility  
FS APPLICATION

INCL INCLM: 514/008.000  
INCLS: 435/068.100  
NCL NCLM: 514/008.000  
NCLS: 435/068.100  
IC [7]  
ICM: A61K038-16  
ICS: C12P021-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 16 OF 262 USPATFULL on STN  
AN 2004:184481 USPATFULL  
TI Fungal transcriptional activator useful in methods for producing  
polypeptides  
IN Hjort, Carsten M., Smorum, DENMARK  
van den Hondel, C.A.M.J.J., PZ Gouda, NETHERLANDS  
Punt, P.J., XT Houten, NETHERLANDS  
Schuren, F.H.J., ZK Veenendaal, NETHERLANDS  
Christensen, Tove, Lyngby, DENMARK  
PA Novozymes A/S, Bagsvaerd, DENMARK, DK-2880 (non-U.S. corporation)  
PI US 2004142364 A1 20040722  
AI US 2003-729172 A1 20031205 (10)  
RLI Division of Ser. No. US 2000-525305, filed on 14 Mar 2000, PENDING  
Continuation-in-part of Ser. No. US 1999-411925, filed on 4 Oct 1999,  
ABANDONED  
PRAI DK 1998-1258 19981005  
US 1998-103945P 19981013 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 2261  
INCL INCLM: 435/006.000  
INCLS: 435/069.100; 435/199.000; 435/320.100; 435/325.000; 536/023.200  
NCL NCLM: 435/006.000  
NCLS: 435/069.100; 435/199.000; 435/320.100; 435/325.000; 536/023.200  
IC [7]  
ICM: C12Q001-68  
ICS: C07H021-04; C12N009-22

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 262 USPATFULL on STN  
AN 2004:172476 USPATFULL  
TI Glycopegylation methods and proteins/peptides produced by the methods  
IN DeFrees, Shawn, North Wales, PA, UNITED STATES  
Zopf, David, Wayne, PA, UNITED STATES  
Bayer, Robert, San Diego, CA, UNITED STATES  
Bowe, Caryn, Doylestown, PA, UNITED STATES  
Hakes, David, Willow Grove, PA, UNITED STATES  
Chen, Xi, Lansdale, PA, UNITED STATES  
PA Neose Technologies, Inc. (U.S. corporation)  
PI US 2004132640 A1 20040708  
AI US 2003-411012 A1 20030409 (10)  
RLI Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002,  
PENDING  
PRAI US 2002-407527P 20020828 (60)  
US 2002-404249P 20020816 (60)  
US 2002-396594P 20020717 (60)  
US 2002-391777P 20020625 (60)  
US 2002-387292P 20020607 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 19255  
INCL INCLM: 514/008.000  
INCLS: 530/395.000  
NCL NCLM: 514/008.000  
NCLS: 530/395.000  
IC [7]  
ICM: A61K038-16  
ICS: C07K014-00; C07K001-113

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 262 USPATFULL on STN  
AN 2004:171940 USPATFULL  
TI Optimized Fc variants and methods for their generation  
IN Lazar, Gregory Alan, Alhambra, CA, UNITED STATES  
Chirino, Arthur J., Camarillo, CA, UNITED STATES  
Dang, Wei, Pasadena, CA, UNITED STATES

Dob̄erstein, Stephen Kohl, Pasadena, CA, UNITED STATES  
Hayes, Robert J., Pasadena, CA, UNITED STATES  
Karki, Sher Bahadur, Pasadena, CA, UNITED STATES  
Vafa, Omid, Monrovia, CA, UNITED STATES

PA Xencor (U.S. corporation)  
PI US 2004132101 A1 20040708  
AI US 2003-672280 A1 20030926 (10)  
PRAI US 2003-477839P 20030612 (60)  
US 2003-467606P 20030502 (60)  
US 2002-414433P 20020927 (60)  
US 2003-442301P 20030123 (60)

DT Utility  
FS APPLICATION

LN.CNT 7318

INCL INCLM: 435/007.100

INCLS: 530/387.100

NCL NCLM: 435/007.100

NCLS: 530/387.100

IC [7]

ICM: G01N033-53

ICS: C07K016-18

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 262 USPATFULL on STN

AN 2004:165351 USPATFULL

TI Follicle stimulating hormone: remodeling and glycoconjugation of FSH

IN DeFrees, Shawn, North Wales, PA, UNITED STATES

Zopf, David, Wayne, PA, UNITED STATES

Bayer, Robert, San Diego, CA, UNITED STATES

Bowe, Caryn, Doylestown, PA, UNITED STATES

Hakes, David, Willow Grove, PA, UNITED STATES

Chen, Xi, Lansdale, PA, UNITED STATES

PA Neose Technologies, Inc. (U.S. corporation)

PI US 2004126838 A1 20040701

AI US 2003-410997 A1 20030409 (10)

RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
Oct 2002, PENDING

PRAI US 2002-407527P 20020828 (60)

US 2002-404249P 20020816 (60)

US 2002-396594P 20020717 (60)

US 2002-391777P 20020625 (60)

US 2002-387292P 20020607 (60)

US 2001-334301P 20011128 (60)

US 2001-334233P 20011128 (60)

DT Utility

FS APPLICATION

LN.CNT 19355

INCL INCLM: 435/068.100

INCLS: 530/397.000

NCL NCLM: 435/068.100

NCLS: 530/397.000

IC [7]

ICM: C12Q001-68

ICS: C12P021-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 20 OF 262 USPATFULL on STN

AN 2004:165276 USPATFULL

TI Novel compositions and methods in cancer

IN Morris, David W., Davis, CA, UNITED STATES

Malandro, Marc S., Davis, CA, UNITED STATES

PI US 2004126762 A1 20040701

AI US 2002-322281 A1 20021217 (10)

DT Utility

FS APPLICATION

LN.CNT 7682

INCL INCLM: 435/006.000

INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500

NCL NCLM: 435/006.000

NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500

IC [7]

ICM: C12Q001-68

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 21 OF 262 USPATFULL on STN  
AN 2004:150947 USPATFULL  
TI Interferon beta: remodeling and glycoconjugation of interferon beta  
IN DeFrees, Shawn, North Wales, PA, UNITED STATES  
Zopf, David, Wayne, PA, UNITED STATES  
Bayer, Robert, San Diego, CA, UNITED STATES  
Bowe, Caryn, Doylestown, PA, UNITED STATES  
Hakes, David, Willow Grove, PA, UNITED STATES  
Chen, Xi, Lansdale, PA, UNITED STATES  
PA Neose Technologies, Inc. (U.S. corporation)  
PI US 2004115168 A1 20040617  
AI US 2003-410930 A1 20030409 (10)  
RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
Oct 2002, PENDING  
PRAI US 2002-407527P 20020828 (60)  
US 2002-404249P 20020816 (60)  
US 2002-396594P 20020717 (60)  
US 2002-391777P 20020625 (60)  
US 2002-387292P 20020607 (60)  
US 2001-334301P 20011128 (60)  
US 2001-334233P 20011128 (60)  
US 2001-344692P 20011019 (60)  
US 2001-328523P 20011010 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 19412  
INCL INCLM: 424/085.600  
INCLS: 435/068.100; 530/351.000  
NCL NCLM: 424/085.600  
NCLS: 435/068.100; 530/351.000  
IC [7]  
ICM: C12P021-06  
ICS: A61K038-21

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 22 OF 262 USPATFULL on STN  
AN 2004:150914 USPATFULL  
TI Compositions and methods for enhanced mucosal delivery of peptide YY and  
methods for treating and preventing obesity  
IN Quay, Steven C., Edmonds, WA, UNITED STATES  
PI US 2004115135 A1 20040617  
AI US 2002-322266 A1 20021217 (10)  
DT Utility  
FS APPLICATION  
LN.CNT 9307  
INCL INCLM: 424/046.000  
INCLS: 514/012.000  
NCL NCLM: 424/046.000  
NCLS: 514/012.000  
IC [7]  
ICM: A61K038-17  
ICS: A61L009-04; A61K009-14

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 23 OF 262 USPATFULL on STN  
AN 2004:145257 USPATFULL  
TI Multimeric protein engineering  
IN Reinl, Stephen J., Sacramento, CA, UNITED STATES  
Edwards, Patricia C., Sacramento, CA, UNITED STATES  
PI US 2004110930 A1 20040610  
AI US 2003-679620 A1 20031003 (10)  
PRAI US 2002-415940P 20021003 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 8436  
INCL INCLM: 530/387.100  
INCLS: 536/023.530; 435/069.700; 435/320.100; 435/326.000  
NCL NCLM: 530/387.100  
NCLS: 536/023.530; 435/069.700; 435/320.100; 435/326.000  
IC [7]

ICS: C12Q001-68; C07H021-04; C12P021-04; C12N005-06  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 24 OF 262 USPATFULL on STN  
AN 2004:144557 USPATFULL  
TI Methods for diagnosing RCC and other solid tumors  
IN Twine, Natalie C., Goffstown, NH, UNITED STATES  
Burczynski, Michael E., Swampscott, MA, UNITED STATES  
Trepicchio, William L., Andover, MA, UNITED STATES  
Dorner, Andrew J., Lexington, MA, UNITED STATES  
Stover, Jennifer A., Topsfield, MA, UNITED STATES  
Slonim, Donna K., North Andover, MA, UNITED STATES  
PA Wyeth, Madison, NJ (U.S. corporation)  
PI US 2004110221 A1 20040610  
AI US 2003-717597 A1 20031121 (10)  
PRAI US 2002-427982P 20021121 (60)  
US 2003-459782P 20030403 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 8006  
INCL INCLM: 435/006.000  
INCLS: 435/007.230  
NCL NCLM: 435/006.000  
NCLS: 435/007.230  
IC [7]  
ICM: C12Q001-68  
ICS: G01N033-574

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 25 OF 262 USPATFULL on STN  
AN 2004:139471 USPATFULL  
TI Modulators of Cdk9 as a therapeutic target in cardiac hypertrophy  
IN Schneider, Michael D., Houston, TX, UNITED STATES  
Sano, Motoaki, Houston, TX, UNITED STATES  
PI US 2004106647 A1 20040603  
AI US 2003-665336 A1 20030919 (10)  
RLI Continuation-in-part of Ser. No. US 2003-609073, filed on 27 Jun 2003,  
PENDING  
PRAI US 2002-392744P 20020628 (60)  
US 2002-426883P 20021115 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 2521  
INCL INCLM: 514/320.000  
NCL NCLM: 514/320.000  
IC [7]  
ICM: A61K031-452

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 26 OF 262 USPATFULL on STN  
AN 2004:114057 USPATFULL  
TI Polynucleotides and polypeptides associated with the NF-kB pathway  
IN Carman, Julie, Lawrenceville, NJ, UNITED STATES  
Feder, John N., Belle Mead, NJ, UNITED STATES  
Nadler, Steven G., Princeton, NJ, UNITED STATES  
PI US 2004086896 A1 20040506  
AI US 2003-431096 A1 20030507 (10)  
RLI Continuation-in-part of Ser. No. US 2002-126103, filed on 19 Apr 2002,  
PENDING  
PRAI US 2001-284962P 20010419 (60)  
US 2001-286645P 20010426 (60)  
US 2002-346986P 20020109 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 27042  
INCL INCLM: 435/006.000  
INCLS: 435/069.500; 435/320.100; 435/325.000; 530/351.000; 530/388.230;  
536/023.500  
NCL NCLM: 435/006.000  
NCLS: 435/069.500; 435/320.100; 435/325.000; 530/351.000; 530/388.230;  
536/023.500  
IC [7]  
ICM: C12Q001-68  
ICS: C07H021-04; C12P021-02; C07K014-52; C07K016-24

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 27 OF 262 USPATFULL on STN  
 AN 2004:108211 USPATFULL  
 TI Modulators of Cdk9 as a therapeutic target in cardiac hypertrophy  
 IN Schneider, Michael D., Houston, TX, UNITED STATES  
 Sano, Motoaki, Houston, TX, UNITED STATES  
 PI US 2004082613 A1 20040429  
 AI US 2003-609073 A1 20030627 (10)  
 PRAI US 2002-392744P 20020628 (60)  
 US 2002-426883P 20021115 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 2163  
 INCL INCLM: 514/320.000  
 INCLS: 514/423.000  
 NCL NCLM: 514/320.000  
 NCLS: 514/423.000  
 IC [7]  
 ICM: A61K031-452  
 ICS: A61K031-401  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 28 OF 262 USPATFULL on STN  
 AN 2004:107626 USPATFULL  
 TI Interferon alpha: remodeling and glycoconjugation of interferon alpha  
 IN DeFrees, Shawn, North Wales, PA, UNITED STATES  
 Zopf, David, Wayne, PA, UNITED STATES  
 Bayer, Robert, San Diego, CA, UNITED STATES  
 Bowe, Caryn, Doylestown, PA, UNITED STATES  
 Hakes, David, Willow Grove, PA, UNITED STATES  
 Chen, Xi, Lansdale, PA, UNITED STATES  
 PA Neose Technologies, Inc. (U.S. corporation)  
 PI US 2004082026 A1 20040429  
 AI US 2003-411049 A1 20030409 (10)  
 RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
 PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
 Oct 2002, PENDING  
 PRAI US 2002-407527P 20020828 (60)  
 US 2002-404249P 20020816 (60)  
 US 2002-396594P 20020717 (60)  
 US 2002-391777P 20020625 (60)  
 US 2002-387292P 20020607 (60)  
 US 2001-334301P 20011128 (60)  
 US 2001-334233P 20011128 (60)  
 US 2001-344692P 20011019 (60)  
 US 2001-328523P 20011010 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 19445  
 INCL INCLM: 435/068.100  
 INCLS: 530/351.000  
 NCL NCLM: 435/068.100  
 NCLS: 530/351.000  
 IC [7]  
 ICM: C12P021-06  
 ICS: C07K014-54  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 29 OF 262 USPATFULL on STN  
 AN 2004:107249 USPATFULL  
 TI Adzymes and uses thereof  
 IN Afeyan, Noubar B., Lexington, MA, UNITED STATES  
 Lee, Frank D., Chestnut Hill, MA, UNITED STATES  
 Wong, Gordon G., Brookline, MA, UNITED STATES  
 Das Gupta, Ruchira, Auburndale, MA, UNITED STATES  
 Baynes, Brian, Somerville, MA, UNITED STATES  
 PI US 2004081648 A1 20040429  
 AI US 2003-650592 A1 20030827 (10)  
 PRAI US 2002-406517P 20020827 (60)  
 US 2002-423754P 20021105 (60)  
 US 2002-430001P 20021127 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 8325

NCL INCLS: 435/226.000  
NCLM: 424/094.630  
NCLS: 435/226.000

IC [7]  
ICM: A61K038-48  
ICS: C12N009-64

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 30 OF 262 USPATFULL on STN  
AN 2004:107248 USPATFULL  
TI Adzymes and uses thereof  
IN Afeyan, Noubar B., Lexington, MA, UNITED STATES  
Lee, Frank D., Chestnut Hill, MA, UNITED STATES  
Wong, Gordon G., Brookline, MA, UNITED STATES  
DasGupta, Ruchira, Auburndale, MA, UNITED STATES  
Baynes, Brian, Somerville, MA, UNITED STATES

PI US 2004081647 A1 20040429  
AI US 2003-650591 A1 20030827 (10)  
PRAI US 2002-406517P 20020827 (60)  
US 2002-423754P 20021105 (60)  
US 2002-430001P 20021127 (60)

DT Utility  
FS APPLICATION

LN.CNT 7919

INCL INCLM: 424/094.630  
INCLS: 435/069.700; 435/226.000

NCL NCLM: 424/094.630  
NCLS: 435/069.700; 435/226.000

IC [7]  
ICM: A61K038-48  
ICS: C12N009-64; C12P021-04

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 31 OF 262 USPATFULL on STN  
AN 2004:101966 USPATFULL  
TI Granulocyte colony stimulating factor: remodeling and glycoconjugation  
of G-CSF  
IN DeFrees, Shawn, North Wales, PA, UNITED STATES

Zopf, David, Wayne, PA, UNITED STATES  
Bayer, Robert, San Diego, CA, UNITED STATES  
Bowe, Caryn, Doylestown, PA, UNITED STATES  
Hakes, David, Willow Grove, PA, UNITED STATES  
Chen, Xi, Lansdale, PA, UNITED STATES

PA Neose Technologies, Inc. (U.S. corporation)

PI US 2004077836 A1 20040422  
AI US 2003-410962 A1 20030409 (10)

RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
Oct 2002, PENDING

PRAI US 2002-407527P 20020828 (60)  
US 2002-404249P 20020816 (60)  
US 2002-396594P 20020717 (60)  
US 2002-391777P 20020625 (60)  
US 2002-387292P 20020607 (60)  
US 2001-334301P 20011128 (60)  
US 2001-334233P 20011128 (60)  
US 2001-344692P 20011019 (60)  
US 2001-328523P 20011010 (60)

DT Utility  
FS APPLICATION

LN.CNT 19316

INCL INCLM: 530/351.000  
INCLS: 435/068.100

NCL NCLM: 530/351.000  
NCLS: 435/068.100

IC [7]  
ICM: C12P021-06  
ICS: C07K014-535

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 32 OF 262 USPATFULL on STN  
AN 2004:101671 USPATFULL  
TI Compositions and methods for modulating physiology of epithelial

therapeutic compounds  
IN Quay, Steven C., Edmonds, WA, UNITED STATES  
PA Nastech Pharmaceutical Company Inc. (U.S. corporation)  
PI US 2004077540 A1 20040422  
AI US 2003-601953 A1 20030624 (10)  
PRAI US 2002-392512P 20020628 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 13170  
INCL INCLM: 514/012.000  
NCL NCLM: 514/012.000  
IC [7]  
ICM: A61K038-17

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 33 OF 262 USPATFULL on STN  
AN 2004:101093 USPATFULL  
TI Methods of diagnosis of bladder cancer, compositions and methods of  
screening for modulators of bladder cancer  
IN Mack, David H., Menlo Park, CA, UNITED STATES  
Aziz, Natasha, Palo Alto, CA, UNITED STATES  
PA Eos Biotechnology, Inc., South San Francisco, CA, UNITED STATES,  
94080-7019 (U.S. corporation)  
PI US 2004076955 A1 20040422  
AI US 2002-188832 A1 20020702 (10)  
PRAI US 2002-372246P 20020412 (60)  
US 2001-350666P 20011113 (60)  
US 2001-343705P 20011108 (60)  
US 2001-310099P 20010803 (60)  
US 2001-302814P 20010703 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 27357  
INCL INCLM: 435/006.000  
INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500  
NCL NCLM: 435/006.000  
NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500  
IC [7]  
ICM: C12Q001-68  
ICS: C07H021-04; C12P021-02; C12N005-06; C07K014-47

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 34 OF 262 USPATFULL on STN  
AN 2004:94708 USPATFULL  
TI Molecular toxicology modeling  
IN Mendrick, Donna, Gaithersburg, MD, UNITED STATES  
Porter, Mark, Gaithersburg, MD, UNITED STATES  
Johnson, Kory, Gaithersburg, MD, UNITED STATES  
Higgs, Brandon, Gaithersburg, MD, UNITED STATES  
Castle, Arthur, Gaithersburg, MD, UNITED STATES  
Elashoff, Michael, Gaithersburg, MD, UNITED STATES  
PI US 2004072160 A1 20040415  
AI US 2002-152319 A1 20020522 (10)  
PRAI US 2001-292335P 20010522 (60)  
US 2001-297523P 20010613 (60)  
US 2001-298925P 20010619 (60)  
US 2001-303810P 20010710 (60)  
US 2001-303807P 20010710 (60)  
US 2001-303808P 20010710 (60)  
US 2001-315047P 20010828 (60)  
US 2001-324928P 20010927 (60)  
US 2001-330867P 20011101 (60)  
US 2001-330462P 20011022 (60)  
US 2001-331805P 20011121 (60)  
US 2001-336144P 20011206 (60)  
US 2001-340873P 20011219 (60)  
US 2002-357843P 20020221 (60)  
US 2002-357842P 20020221 (60)  
US 2002-357844P 20020221 (60)  
US 2002-364134P 20020315 (60)  
US 2002-370206P 20020408 (60)  
US 2002-370247P 20020408 (60)  
US 2002-370144P 20020408 (60)  
US 2002-371679P 20020412 (60)  
US 2002-372794P 20020417 (60)



FS APPLICATION  
LN.CNT 27909  
INCL INCLM: 435/006.000  
INCLS: 435/091.200; 436/084.000  
NCL NCLM: 435/006.000  
NCLS: 435/091.200; 436/084.000  
IC [7]  
ICM: C12Q001-68  
ICS: C12P019-34; G01N033-20  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 35 OF 262 USPATFULL on STN  
AN 2004:94253 USPATFULL  
TI Serum protein-associated target-specific ligands and identification  
method therefor  
IN Sato, Aaron K., Somerville, MA, UNITED STATES  
Edge, Albert, Newton, MA, UNITED STATES  
PA DYAX CORPORATION (U.S. corporation)  
PI US 2004071705 A1 20040415  
AI US 2003-602141 A1 20030623 (10)  
PRAI US 2002-390657P 20020621 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 2724  
INCL INCLM: 424/145.100  
INCLS: 435/007.100  
NCL NCLM: 424/145.100  
NCLS: 435/007.100  
IC [7]  
ICM: G01N033-53  
ICS: A61K039-395  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 36 OF 262 USPATFULL on STN  
AN 2004:89119 USPATFULL  
TI Human single nucleotide polymorphisms in organic anion transport and  
multi-drug resistant proteins  
IN Tsuchihashi, Zenta, Pennington, NJ, UNITED STATES  
Hui, Lester, Fairfax, VA, UNITED STATES  
Kirchgessner, Todd, North Wales, PA, UNITED STATES  
PI US 2004068096 A1 20040408  
AI US 2002-252155 A1 20020920 (10)  
PRAI US 2001-324172P 20010921 (60)  
US 2001-333700P 20011127 (60)  
DT Utility  
FS APPLICATION  
LN.CNT 18439  
INCL INCLM: 530/350.000  
INCLS: 435/006.000; 435/069.100; 435/320.100; 435/325.000; 536/023.500  
NCL NCLM: 530/350.000  
NCLS: 435/006.000; 435/069.100; 435/320.100; 435/325.000; 536/023.500  
IC [7]  
ICM: C07K014-47  
ICS: C12Q001-68; C07H021-04; C12P021-02; C12N005-06  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 37 OF 262 USPATFULL on STN  
AN 2004:83455 USPATFULL  
TI Protein remodeling methods and proteins/peptides produced by the methods  
IN DeFrees, Shawn, North Wales, PA, UNITED STATES  
Zopf, David, Wayne, PA, UNITED STATES  
Bayer, Robert, San Diego, CA, UNITED STATES  
Hakes, David, Willow Grove, PA, UNITED STATES  
Chen, Xi, Lansdale, PA, UNITED STATES  
PA Neose. Technologies, Inc. (U.S. corporation)  
PI US 2004063911 A1 20040401  
AI US 2003-411026 A1 20030409 (10)  
RLI Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003,  
PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan  
2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on  
5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9  
Oct 2002, PENDING  
PRAI US 2002-407527P 20020828 (60)  
US 2002-404249P 20020816 (60)  
US 2002-396594P 20020717 (60)

US 2002-387292P 20020607 (60)  
US 2001-334301P 20011128 (60)  
US 2001-334233P 20011128 (60)  
US 2001-344692P 20011019 (60)  
US 2001-328523P 20011010 (60)

DT Utility  
FS APPLICATION

LN.CNT 18872

INCL INCLM: 530/351.000  
INCLS: 435/068.100; 530/395.000

NCL NCLM: 530/351.000  
NCLS: 435/068.100; 530/395.000

IC [7]  
ICM: C12P021-06  
ICS: C07K014-54

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 38 OF 262 USPATFULL on STN

AN 2004:77314 USPATFULL

TI Methods to construct multimeric DNA and polymeric protein sequences as  
direct fusions or with linkers

IN Bussell, Stuart, Carlsbad, CA, UNITED STATES

PI US 2004059093 A1 20040325

AI US 2003-621693 A1 20030716 (10)

PRAI WO 2003-US22216 20030716  
US 2002-396466P 20020716 (60)

DT Utility  
FS APPLICATION

LN.CNT 4366

INCL INCLM: 530/350.000  
INCLS: 435/006.000; 435/091.200; 536/023.500

NCL NCLM: 530/350.000  
NCLS: 435/006.000; 435/091.200; 536/023.500

IC [7]  
ICM: C07K014-705  
ICS: C07K014-47; C12Q001-68; C07H021-04; C12P019-34

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 39 OF 262 USPATFULL on STN

AN 2004:69593 USPATFULL

TI Fusion proteins comprising DP-178 and other viral fusion inhibitor  
peptides useful for treating aids

IN Bolognesi, Dani Paul, Durham, NC, UNITED STATES

Matthews, Thomas James, Durham, NC, UNITED STATES

Wild, Carl T., Durham, NC, UNITED STATES

Barney, Shawn O'apos, Lin, Cary, NC, UNITED STATES

Lambert, Dennis Michael, Cary, NC, UNITED STATES

Petteway, Stephen Robert, Cary, NC, UNITED STATES

Langlois, Alphonse J., Durham, NC, UNITED STATES

PA Duke University (U.S. corporation)

Trimeris, Inc. (U.S. corporation)

PI US 2004052820 A1 20040318

AI US 2002-267748 A1 20021008 (10)

RLI Continuation of Ser. No. US 1995-484223, filed on 7 Jun 1995, PENDING  
Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, GRANTED, Pat.  
No. US 6479055 Continuation-in-part of Ser. No. US 1994-360107, filed on  
20 Dec 1994, GRANTED, Pat. No. US 6017536 Continuation-in-part of Ser.  
No. US 1994-255208, filed on 7 Jun 1994, GRANTED, Pat. No. US 6440656  
Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993,  
GRANTED, Pat. No. US 5464933

DT Utility  
FS APPLICATION

LN.CNT 40442

INCL INCLM: 424/208.100  
INCLS: 424/188.100; 530/350.000; 424/204.100; 530/300.000

NCL NCLM: 424/208.100  
NCLS: 424/188.100; 530/350.000; 424/204.100; 530/300.000

IC [7]  
ICM: A61K039-21  
ICS: C07K014-16; A61K039-12; C07K002-00; C07K004-00; C07K005-00;  
C07K007-00; C07K014-00; C07K016-00; C07K017-00; A61K038-00; C07K001-00

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 40 OF 262 USPATFULL on STN

AN 2004:63725 USPATFULL

IN Arap, Wadih, Houston, TX, UNITED STATES  
Pasqualini, Renata, Houston, TX, UNITED STATES  
PI US 2004048243 A1 20040311  
AI US 2003-363208 A1 20030902 (10)  
WO 2001-US27702 20010907

DT Utility  
FS APPLICATION

LN.CNT 6663

INCL INCLM: 435/005.000

INCLS: 435/006.000

NCL NCLM: 435/005.000

NCLS: 435/006.000

IC [7]

ICM: C12Q001-70

ICS: C12Q001-68

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 41 OF 262 USPATFULL on STN

AN 2004:57444 USPATFULL

TI Alpha galactosidase a: remodeling and glycoconjugation of alpha  
galactosidase A

IN DeFrees, Shawn, North Wales, PA, UNITED STATES

Zopf, David, Wayne, PA, UNITED STATES

Bayer, Robert, San Diego, CA, UNITED STATES

Bowe, Caryn, Doylestown, PA, UNITED STATES

Hakes, David, Willow Grove, PA, UNITED STATES

Chen, Xi, Lansdale, PA, UNITED STATES

PA Neose Technologies, Inc. (U.S. corporation)

PI US 2004043446 A1 20040304

AI US 2003-411037 A1 20030409 (10)

RLI Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002,  
PENDING

PRAI US 2002-407527P 20020828 (60)

US 2002-404249P 20020816 (60)

US 2002-396594P 20020717 (60)

US 2002-391777P 20020625 (60)

US 2002-387292P 20020607 (60)

DT Utility

FS APPLICATION

LN.CNT 19395

INCL INCLM: 435/068.100

INCLS: 435/193.000; 435/208.000

NCL NCLM: 435/068.100

NCLS: 435/193.000; 435/208.000

IC [7]

ICM: C12P021-06

ICS: C12N009-40; C12N009-10

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 42 OF 262 USPATFULL on STN

AN 2004:50902 USPATFULL

TI Enhanced in vitro synthesis of active proteins containing disulfide  
bonds

IN Swartz, James Robert, Menlo Park, CA, UNITED STATES

Kim, Dong-Myung, Walnut Creek, CA, UNITED STATES

PI US 2004038332 A1 20040226

AI US 2003-404599 A1 20030331 (10)

RLI Continuation-in-part of Ser. No. US 2001-948052, filed on 5 Sep 2001,  
GRANTED, Pat. No. US 6548276

PRAI US 2000-230381P 20000906 (60)

DT Utility

FS APPLICATION

LN.CNT 1264

INCL INCLM: 435/068.100

NCL NCLM: 435/068.100

IC [7]

ICM: C12P021-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 43 OF 262 USPATFULL on STN

AN 2004:50813 USPATFULL

TI Novel secreted proteins and their uses

IN Edmonds, Brian Taylor, Carmel, IN, UNITED STATES

Micanovic, Radmila, Indianapolis, IN, UNITED STATES

Ou, Weijia, Fishers, IN, UNITED STATES

Tschang, Sheng-Hung Rainbow, Carmel, IN, UNITED STATES  
 Wang, He, Carmel, IN, UNITED STATES  
 PI US 2004038242 A1 20040226  
 AI US 2003-343348 A1 20030129 (10)  
 WO 2001-US21124 20010730  
 DT Utility  
 FS APPLICATION  
 LN.CNT 6887  
 INCL INCLM: 435/006.000  
 INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500  
 NCL NCLM: 435/006.000  
 NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500  
 IC [7]  
 ICM: C12Q001-68  
 ICS: C07H021-04; C12P021-02; C12N005-06; C07K014-705; C07K014-47  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 44 OF 262 USPATFULL on STN  
 AN 2004:50383 USPATFULL  
 TI Compositions and methods for enhanced mucosal delivery of interferon beta  
 IN Quay, Steven C., Edmonds, WA, UNITED STATES  
 Gupta, Malini, Dix Hills, NY, UNITED STATES  
 de Meireles, Jorge C., Syosset, NY, UNITED STATES  
 Abd El-Shafy, Mohammed, Hauppauge, NY, UNITED STATES  
 PA Nastech Pharmaceutical Company Inc. (U.S. corporation)  
 PI US 2004037809 A1 20040226  
 AI US 2003-462452 A1 20030616 (10)  
 PRAI US 2002-393066P 20020628 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 10725  
 INCL INCLM: 424/085.600  
 NCL NCLM: 424/085.600  
 IC [7]  
 ICM: A61K038-21  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 45 OF 262 USPATFULL on STN  
 AN 2004:44245 USPATFULL  
 TI Nucleic acids encoding DP-178 and other viral fusion inhibitor peptides useful for treating aids  
 IN Bolognesi, Dani Paul, Durham, NC, UNITED STATES  
 Matthews, Thomas James, Durham, NC, UNITED STATES  
 Wild, Carl T., Durham, NC, UNITED STATES  
 PA Duke University (U.S. corporation)  
 PI US 2004033235 A1 20040219  
 AI US 2003-267682 A1 20030106 (10)  
 RLI Continuation of Ser. No. US 1995-484223, filed on 7 Jun 1995, PENDING  
 Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, GRANTED, Pat. No. US 6479055 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, GRANTED, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994, GRANTED, Pat. No. US 6440656 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, GRANTED, Pat. No. US 5464933  
 DT Utility  
 FS APPLICATION  
 LN.CNT 59510  
 INCL INCLM: 424/186.100  
 INCLS: 424/188.100; 530/350.000; 424/208.100; 424/187.100  
 NCL NCLM: 424/186.100  
 NCLS: 424/188.100; 530/350.000; 424/208.100; 424/187.100  
 IC [7]  
 ICM: A61K039-21  
 ICS: A61K039-12; C07K014-16; C07K014-10; C07K014-05; C07K014-11  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 46 OF 262 USPATFULL on STN  
 AN 2004:39573 USPATFULL  
 TI 31 human secreted proteins  
 IN Rosen, Craig A., Laytonsville, MD, UNITED STATES  
 Ruben, Steven M., Brookeville, MD, UNITED STATES  
 Ferrie, Ann M., Painted Post, NY, UNITED STATES  
 Florence, Charles, Rockville, MD, UNITED STATES  
 Young, Paul E., Gaithersburg, MD, UNITED STATES